



INDIA'S ECONOMIC COOPERATION WITH IRAN SINCE 1991

**ABSTRACT
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SUBMITTED FOR THE AWARD OF THE DEGREE OF

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By

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ABSTRACT

There is plenty of evidence about the increasing role of Multinational Companies (MNCs) in the expansion of economic activities world wide since 1970s. India, due to its restrictive policies towards the international market as well as domestic economy, failed to attract the MNCs and hence remained aloof from the technological developments, innovations and inventions that were evident in the international market. But the Balance of Payments crisis of 1990 forced the Indian Economy to fall into the line of the new economic order. The new policies of 1991 provided immense scope for the economic collaboration and cooperation among the different economies to put the economy on the path of the expanded economic activities. In fact the basic reason behind this development is that the developing economies have large amount of untapped resources and opportunities because of inappropriate amount of capital and technologies. Hence to make a difference between the period of restrictive policies and the era of economic cooperation, it necessitates the analysis of the economic ties between two economies. The present work is a modest attempt in this direction to look into the fact about the India's economic cooperation with Iran since 1991.

The second chapter is devoted to the analysis of the structure of the Indian economy. India is well known in the world for its primary sector as the core sector of the economy. It

has a comparative advantage in the production of agricultural commodities and some important minerals like iron ore, copper, manganese ore, lead, bauxite, mica etc. which are the backbone of the industrial sector. But for the rest of the other important raw materials like petroleum, lubricants, chemicals elements import is the main source. Iran being a rich country in the production of the above commodities and since it is quite close to India, became the most important country from where these items are imported, while importing these products India had to made an expenditure of Rs. 3264 crores in 1980-81 that increased to Rs. 45421 crores in 2000-01. Showing the growing importance of the petroleum products in the way of development unfinished and semi-finished products like pearls, precious and semi-precious stones, worked and un-worked edible oil, capital goods etc. have shown their importance with the passage of time and the India's dependency on the import of these commodities have increased.

As far as the Indian exportable commodities are concerned they are divided into three broad categories viz. (i) Agriculture and allied Commodities (ii) Ore and Minerals and (iii) Manufactured items. An annual growth rate of 2.8 percent is registered in the export of agricultural allied commodities during 1960-61 to 1980-81, while during 1980s it grew by 19.16 percent annually but shrinked to only 9 percent per annum after the initiation of New Economic Reforms. The growth in the export of ores and minerals was slow but after 1980s a sharp increment in the export of these items is observed. It became Rs.

2975 crores in 1999-2000 from Rs. 1497 crores in 1990-91. In the total exports of minerals the contribution of mica and iron ore is highest. India has registered a sustained increase in the export of manufactured commodities. In comparison to 1960s and 1970s the export of these commodities is high during 1980-81 that rose to 72.91 percent in the year of 1990-91 and further increased to 79.53 percent in 1999-2000.

Russia has occupied an important place in case of direction of India's export till 1991. But after the collapse of the Russian market, Indian export to this country negatively grew by 2.65 percent annually. The place of Russia is now occupied by the USA and this country has become a major source of foreign exchange earning. During 1990-91 to 1999-2000 the Indian export to USA has registered the highest growth rate of 25.47 percent annually. The other important economies from view point of Indian export are Africa, Asia, France and Belgium. The USA market is very important in view of Indian import too. In 1990-91, the share of USA in Indian total import was 12.14 percent that was the highest among all the individual countries. After some disturbances, USA recaptured its position at the end of fiscal year 1999-2000. Iran occupied the second place in terms of growth of import to India. For the period of 1990-91 to 1999-2000, the growth rate of Indian import from Iran is 17.48 percent per annum.

Broadly speaking, though the structure of the Indian economy has changed significantly but still the agriculture

sector is playing an important role in determining the fate of the economy. It gives employment opportunities to 64 percent of the total population and contributes 26 percent in GDP and shares 20 percent in India's total exports. From a low input consuming and traditional mode of production, Indian agriculture became a highly input consuming and mechanized sector. All changes evident in agriculture sector are the result of Green Revolution. Just like the agriculture sector, industrial sector was also very much traditional at the time of independence. But the policies of the second Five Year Plan did not leave any stone unturned to modernize it. As a result after covering some gestation period, the growth rate of industrial sector became 7.8 percent during 1980-92 annually. But the policies of New Economic Reforms have adversely affected the industrial sector and the growth rate of this sector declined to 6 percent per annum during 1992-2000. Despite the bad impact of the policies of liberalization, privatization and globalization on the industrial sector, it left a significant impact on the volume of trade. The expenditure of the petroleum product has declined after 1990-91, but once again increased to 26.4 percent of the total expense in 2000-001. The same has happened in case of import of non-oil and non-gold commodities. But at the end of 1999-2000, the growth rate of these commodities decelerated sharply. Over the period of 1991-98, the growth rate of Indian merchandise export is 13 percent. While the export of the agriculture and manufactured commodities grew by 14.68 and 13.81 percent annually respectively.

The third chapter of the present research work covers the frame work of Iranian economy. Iranian economy, well known for oil reserves, became more dependent for its development work on the oil revenues since 1970s. As a result, the Iranian oil policies have been the heart of the country's development strategy that over shadowed the all other economic policies. The decisions with respect to exploration, production and marketing have been at the top of the nation's economic agenda and priorities other than petroleum products, some important minerals like coals, lead, copper, uranium, magnasite, tine mica etc. are found in significant amount that are of crucial importance.

The principal importable commodities of Iranians are comprised of food and live animals, chemical products, iron and steel and machinery and transportation etc. Iranian total import in 1990-91 was \$18722 million that decreased to \$12683 million in 1999-2000. Out of this total import expenses 11.41 percent is shared by food and live animals in 1990-91 and an increased share of 15.39 percent in 1999-2000. The import of chemical products during this period has declined and registered a negative growth rate of 2.01 percent. The import of iron and steel has also moved in the same direction and Iran expanded only \$1819 million in 2000-01 in comparison to an expenditure of \$4004 million in 1991-92. While doing so, iron and steel shared 15.63 percent in the Iranian total import for the period of 1991-92 that declined to 12.67 percent in 2000-01. During 1990s, the Iranian import of machinery and transportation

combines a sizable amount of \$6264 million in 1990-91 and shares 86.87 percent in Iranian total import. Since then, the share of machinery and transportation in Iranian total import had declined over the period. The share of this item was 52.02 percent in 1991-92 that decreased to 36.04 percent in 2000-01. The next important item that contributes a respectable amount in total import is the electric machinery tools and appliance. The expenditure on this item increased to \$1111million in 2000-01 from \$1034 million in 1990-91.

Oil gas and oil product, fresh and dry fruit are the principal commodities that are exported by Iranians to the world. Apart from this, carpet and all kind of skin and leather are also exported by Iran in a significant amount. Among the export of manufactured commodities, chemical products, copper and bar sheet and wire, cost iron, iron and steel, readymade clothes, knitwere and all kinds of fabric are the major commodities. Being rich in reserves of petroleum, petrochemical is an important source of revenue that contributes a major portion of non-oil industrial exports. The contribution of oil, gas and oil products was 85.80 percent in 1991-92, that marginally fell to 85.30 percent in 2000-01. During the period of 1991-92 to 2000-01, the export of these items grew by 9.09 percent. In the group of agricultural commodities the share of fresh and dry fruits is highest. The Iranian export of carpet has declined during 1990s. The export earning from this item declined to \$581.2 million in 2000-01 from an amount of \$161.2 million in the year 1991-92. The attention has been given to

industrialization and diversification of economy in each and every plan of the Iranian planned economic development since 1970. This has produced the positive result to the economy and the share of industrial goods in Iranian total export has increased to 10.7 percent in 2000-01 from 3.5 percent in 1991-92.

As far as the direction of Iranian export is concerned, Japan was at the top with a share of 20.71 percent in Iranian total exports followed by Germany with a share of 11.82 percent and third position was occupied by Italy with a share of 8.64 percent. After completion of one decade nothing is changed in the position of Japan and remains at the top though the percentage share has declined. But the place of Germany and Italy is acquired by England and UAE. In case of import, the highest amount of Iranian demand is fulfilled by Germany. It supplied 18.32 percent of Iran's total importable demand in 1990-91. But importing 10.32 percent, from Japan, Iran gave it second position followed by Italy that supplied 8.0 percent of the total import demand of Iranian.

⁶ The Iranian economy was traditionally agriculture based till 1970 when the agriculture sector was the major contribution to the country's GDP. The importance of agriculture is increasing by evident since demand for agriculture is unable to keep pace with the growing demand. This has happened mainly due to a rapid growth in the population and increasing rural urban migration. Consequently government is faced to rely on

imports. A slight decline in the share of agriculture sector to GDP is observed in 1990s when its share decreased to 20.9 percent of GDP in 1999-2000 from 23.9 percent in 1992-93. The percentage of population engaged in this sector has also declined over the period of two decades, 38.5 percent of total population was engaged in agriculture sector in 1990 that declined to 28.2 percent in 1997.

By adopting a policy of import substitution, Iran entered in the era of rapid industrialization in 1960s. a wide range of non-durable consumer goods like textile, clothing, shoes and processed foods got the attention of the industrialization. Gradually the industrialization process extended to durable consumer goods like refrigerators, television sets etc. followed by the production of intermediate and capital goods. The development of a wide range of new industries has changed the composition of Iran's external trades resulted in an accelerated growth in the exports during 1970s and 1980s. During the period of 1990-91 to 1999-2000 the annual average growth rate of GDP was 5.47 percent and the annual average growth rate of manufacturing and mining sector was 3.6 percent during the same period.

The fourth chapter investigates about India's trade relations with Iran. The evidences of trade relation between these two sovereign nations are found since the ancient period. In the modern time, a well settled economic relation was provided only after India's independence when the first treaty of

commerce and navigation was signed in 1954 that became the basis for the economic cooperation between these two nations in later. A sharp increase in the oil prices of the petroleum products in 1973 proved boon for the Iranian economy. A huge amount of foreign exchange was accumulated by the country against the export of petroleum products that enhanced the purchasing power of the Iranians and marked an important impact on the Iranian import from India. The increased volume of trade diversified the composition of the trade between these two countries. In exchange of minerals, jute, tea and technicians Iran supplies petroleum and lubricants to India. Other than the above items India also exported iron ore, aluminum, steel cement, transmission towers and power generation units for import of fertilizers phosphoric acid, ammonia sulphure and copper from Iran. This momentum of accelerated trade between India and Iran broke down in 1979 when Islamic Revolution took place under the leadership of Ayatullah Khomeini. After the revolution all economic and administrative setup of the country changed and resulted in cancellation of all the agreements and treaties. Due to this India has to loose a substantial part of its trade. The Iran-Iraq War also disrupted the emerging good relation between India and Iran and discontinued the economic cooperation between them. ♡

The gulf war of 1991 brought a distortion in the Indo-Iranian trade in the early 1990s and again fueled by the disintegration of USSR from which both countries have good economic relations. Both the countries were finding the partners

for development of their respective trade and fall into different treaties particularly after the visit of Indian Prime Minister Mr. P.V. Narsimha Rao to Iran in 1993 and Iranian President, Rafsanjani to India in 1995. The available data reveals that out of thirteen important commodities only three commodities have accounted more than 35 percent of the total Indian exports to Iran during 1996-97. These commodities are machinery & instrument, drug pharmaceuticals and fine chemicals and iron ore. At the end of 2002-03, five commodities have emerged that dominate in the Iranian market. These commodities are machinery and instruments, primary and semi-finished products, iron and steel, organic and inorganic chemicals and processed minerals. The composition of importable commodities from Iran is made up with eight selected commodities. These commodities are non-ferrous metals, fruits and nuts, organic chemicals, inorganic chemicals, pulses, sulphure and un-roasted iron-pyrites, art resins and plastic materials and metalifer ores, metal scrap and wool raw.

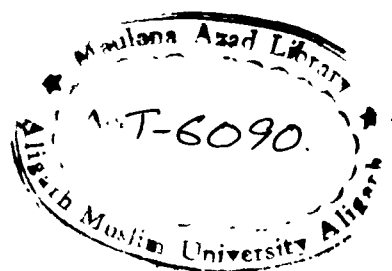
Three important aspects of composition of India's export and import from Iran have been revealed by the available statistics. Firstly, the manufactured and finished products of the Indian exports rule over the Iranian market while the commodities which are imported from Iranian market consist of primary in nature that explains that there is a large scope for the expansion of Indian export to Iran but a small space is provided by the Indian market for the expansion in the Iranian export to India. Secondly, it has been found that since 1996-97 the total

payment made to Iran by India has a declining trend where India's exports earning from Iran has increased remarkably and thirdly, the commodities whose export to Iran has grown by more than 50 percent are five commodities in which four commodities are manufactured products.

Keeping in mind the importance of joint venture and investment between two countries which resulted in exchange of technologies and capital, this aspect of the economic cooperation between India and Iran has analyzed in the fifth chapter. The planning era of both the countries started with the slogan of the reconstruction and diversification of the economy but find it difficult to go ahead while the existing restrictive rules and regulation and both countries liberalize their economies through the policies of New Economic Reforms. Through this process Iran invited private sector in 1991 to participate in the petrochemical industries. The first incidence about the joint venture between India and Iran came into figure in 1965 when Madras Refinery Ltd. was established in Iran with a 50 percent share in the hand of the Ministry of Petroleum and remaining in the hand of National Iranian Oil Company (NIOC). The Irano-Hind Shipping Company Ltd. (IHSC) was formed in 1974 in which 49 percent equity was held by Shipping Corporation of India (SCI) and remaining 51 percent by Islamic Republic of Iran Shipping Lines (IRISL).

Besides joint ventures India exported a number of consultancy services and projects during 1970s. At various

Indian cooperative training institutions India provided training facilities to Iranians. In 1974, India established 32 training centres at the cost of \$5100 million in Iran. 1200 medical personnel were exported to Iran from India during 1975-76. For the development of Kudremukh Iron Ore Mine and important agreement was signed between India and Iran in which the Iranian contribution for the project was \$630 million with the agreement of import of 150 million tons of iron-ore from India over a period of 20 years. To boost the Indo-Iranian Economic Cooperation a number of projects were setup by the India in Iran during 1990s. In Kerman major thermal power project at the cost of \$700 million was setup by Bharat Heavy Electrical Ltd. In early 1990s Iran had expressed interest in supplying natural gas to India. The Iranian proposal was aimed at utilizing the large quantities of natural gas in that country. Iran has largest reserves of natural gas in the world, can supply enough gas for re-export to Nepal, Bhutan, Bangladesh and other countries in the region. India and Iran decided to construct a natural gas pipeline that would run from Iran's Qeshm Island to India. The pipeline was estimated to cost \$4-5 billion with a 2600km long route. The pipe line is expected to supply 50 mm cubic meters of natural gas per day.





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31 JUL 2006



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*Dedicated to
Chotte Abba*

(Late Md. Ayub Ansari)

Dr. Mohammad Iqbal
(Reader)



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Certificate

This is to certify that **Mr. Md. Firdos Ahmad** has completed his thesis entitled **India's Economic Cooperation with Iran Since 1991** under my supervision and is, in my opinion suitable for submission for the award of the Degree of Doctor of Philosophy in West Asian Studies (Economics) of the Aligarh Muslim University.

Mohd Iqbal
(Dr. Mohammad Iqbal)
Supervisor

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To begin with I vow in reverence and gratitude to "MY GOD" whose blessings had always been with me and enabled me to complete this thesis.

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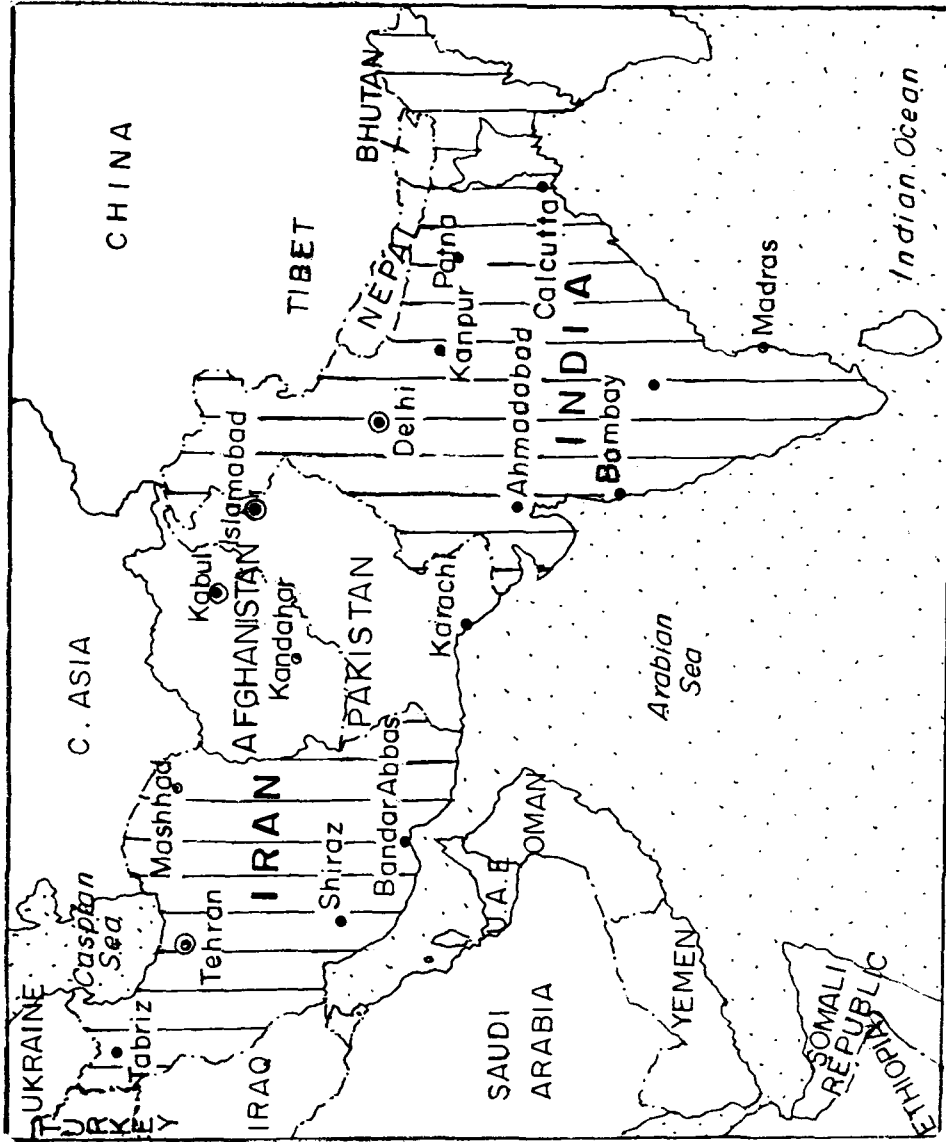
Especial credit goes to my uncle Md. Haroon Rasheed and Aunt Mrs. Sajda Haroon for their prayers and best wishes. It is also a matter of great pleasure to thank Aunt Mrs. Salma Ayub, who bestowed upon me her love and affection as my mother.

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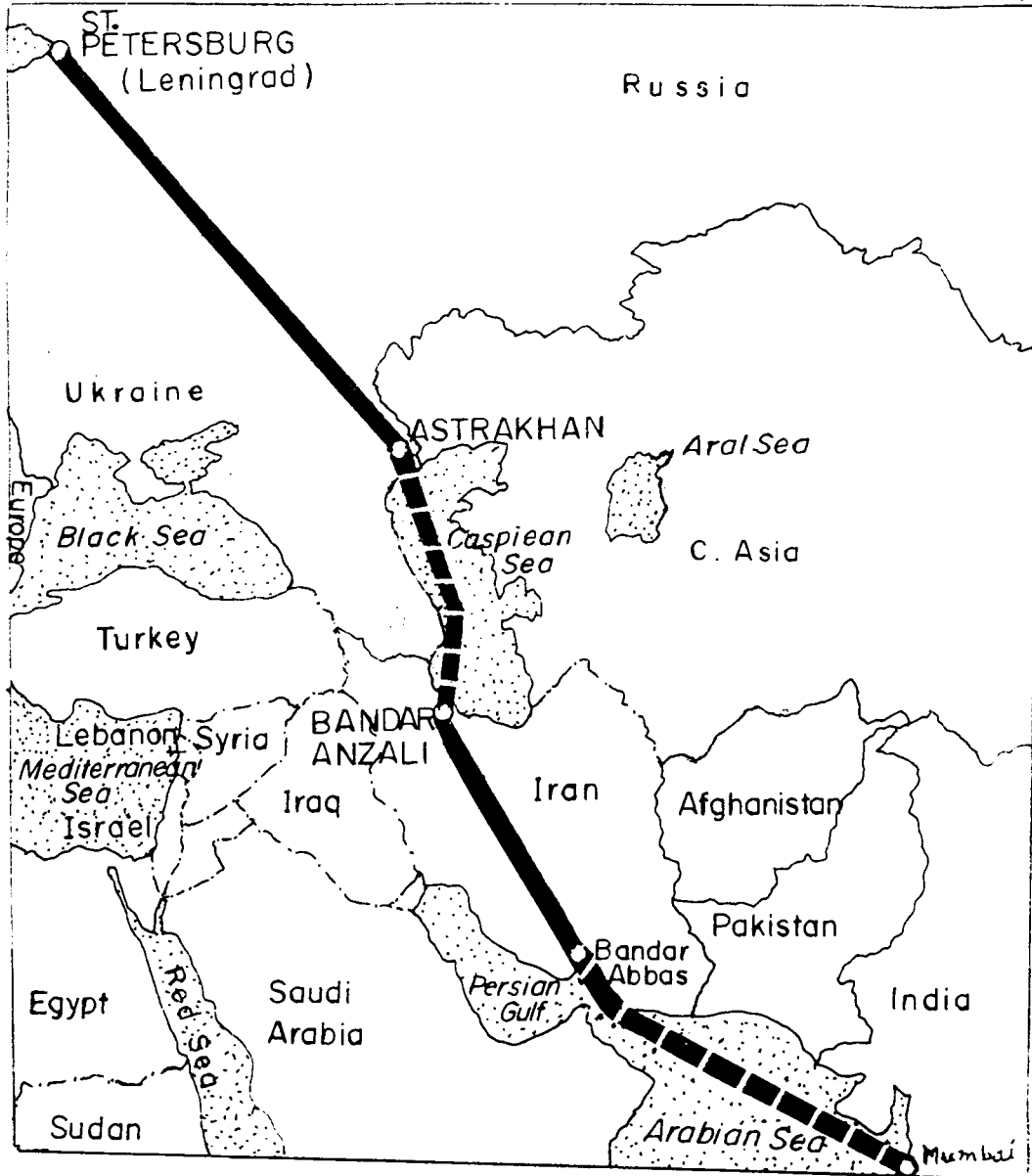
Md. Firdos Ahmad.
(Md. Firdos Ahmad)

LOCATION MAP OF INDIA & IRAN



Cartographic Lab, CWAS, AMU

TRANSIT ROUTE FROM INDIA TO RUSSIA VIA IRAN



Cartographic Lab, CWAS (AMU) Aligarh

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**

PREFACE

Economic and technical cooperation among developing countries has been not just an exercise on paper; it has been extended widely through increasing commercial and trade transaction among developing countries and also with the emergence of production cooperation through transfer of technology by newly industrialized countries. One example of such cooperation has been among the developing countries of Asia and Africa.

The era 1990s have been an expansion of economic activity among the developing countries through a series of economic reforms in their economies, which in one form or another, are still underway. The process started in a climate of increasing economic integration and growing economic interdependence with increasing cross border movement of goods, services capital, technology, information and people, but also with organization of economic cooperation between nations. This process is basically driven by the lure of profit and the threat of competition in market. As a matter of fact, integration with the world economy through globalization and liberalization is believed to be highly beneficial to those countries which have laid the requisite foundation for industrialization and development. This has helped in raising productivity of the concerned economy, including the agricultural sector. This has also helped in the acquisition of technological and managerial capabilities and the creation of

institutions that would regulate govern and facilitate the functioning of markets.

The present study is a modest attempt to analyze in detail India's economic cooperation with Iran since 1991. A thorough study of the patterns of India's trade relations with Iran in terms of imports and exports has been made. The potential for bilateral trade with Iran has been immense in 1990s and India is seeking ways of diversifying the bilateral economic relationship to include Indian participation in projects related to the economic reconstruction of Iran. India's new commercial policies along with the favourable trade relations in the past between India and Iran could be effective in expanding bilateral ties. Both countries are now finding that transportation, transit and joint investment in railways and export of traditional goods are suitable areas for cooperation. In addition the study has highlighted sectoral areas of each country's economy in which trade and other types of economic cooperation could be enhanced on rational basis for increasing the prospects of promoting bilateral cooperation. Hence the thrust of the analysis is to understand the major issues related to bilateral and multilateral economic relations of India with Iran so as to provide a basis for a more comprehensive strategy for fostering economic and commercial relations on a reasonably sound basis. The study is based on the analysis of data collected mainly from Economic Report and Balance Sheet, economic trend and annual report published by Central Bank of Islamic Republic of Iran, Annual Reports of Ministry of

Finance and Ministry of Commerce, Economic Survey of the Government of India, Reserve Bank of India, Directorate General of Commerce Intelligence and Statistics (DGCIS), IMF and the World Bank, varied United Nations agencies etc. since the original data from the Iranian sources are not readily available, the study is based on the secondary sources provided by India and foreign agencies in some cases.

The present study is divided into six chapters. The first chapter deals with the introduction of the present study, purpose and scope of the study and the significance of various trade theories and their implication for developing countries.

The second chapter discusses the composition and direction of Indian trade and also deals with the level of agriculture and industrial sector of the Indian economy. This chapter also discusses India's foreign trade especially during nineties. In the third chapter, study had been made of the composition and direction of Iranian trade and it also discusses the level of agriculture and industrial sector of the Iranian economy. This chapter also deals with Iran's economic and foreign trade policy especially in post Revolution period.

Chapter four discusses commodity composition of India's trade with Iran. Important commodities from the point of view of India's exports to Iran and import from Iran have been pointed out and the commodity groups which have persistently been increasing in the trade between them have

been listed out. This chapter also discusses trade balance and trade problems existing between them.

In chapter fifth, an attempt has been made to trace out various agreements of economic collaboration in the field of joint ventures and project exports to Iran from India. Different factors influencing the joint ventures and project exports of India in Iran have been studied. Chapter sixth provides the summary and major conclusions of the analysis. The results of different chapters as well as recommendations have been incorporated in this chapter.

Chapter -1

INTRODUCTION

The Islamic Republic of Iran is bounded on the north by the Caspian Sea, on the east by Afghanistan and Pakistan, on the south by the Persian Gulf and the Gulf of Oman and on the west by Iraq and Turkey. Traditionally, Iran is an agricultural country, but since the discovery of oil in 1908, oil has played crucial role in the development of the country. Iran has largest natural gas reserve in the Middle East and is the second largest oil producer in the west Asia region. The major economic activity in Iran is petroleum industry. According to an official estimate, Iran's proven oil reserves at the end of 2001 were 89,700 million barrels, representing about 9 percent of world reserves and 13.1 percent of those in the Middle East, and were expected to last for 64.7 years at current production rates.

Since the Second World War, the exploitation and export of large oil and gas reserves has been the major source of revenue. Under successive plans since 1945, oil revenue has been used to finance¹ balanced economic development, including non-oil industrialization and maintenance of a substantial agricultural sector. The Islamic Revolution of 1979 represented a major watershed not only politically but economically also. The new regime declared its determination to end Iran's large degree of dependence on the west. The resultant dislocation being compounded by the 1980-88 war with Iraq. Since that conflict, efforts to resume broad economic development and diversification have been hurdled by volatile world oil prices, internal structural

weakness and rampant inflation and by persistent political tensions with the west, especially the USA. Despite the fact that oil sector has accounted for a diminishing share of Gross Domestic Product (GDP) in recent years, the government still remains heavily dependent on oil revenues in its quest to improve the living standards of Iran's large population.

The destructive effect⁽²⁾ of Iraq-Iran dominated all economic and political life of Iranians in the post war era. War needs dictated planning priorities, distorting the economy and forcing long-term objectives to be sacrificed to expediency. It has been estimated that annual expenditure of foreign exchange on the war was US \$ 5000 million - \$ 19000 million. After the announcement of the cease-fire attempts were made to assess the extent of the damage inflicted on the Iranian economy during the war widely diverging figures were quoted for the cost of reconstruction. The cost of repairing industrial plant alone was estimated to \$ 4900 million. Lack of positive leadership often appeared to resolve fundamental issues of the development. One crucial issue affecting the economy after the Revolution was disagreement over the degree of government involvement in business.

After 1981, the government appeared to favour an increment in state control, particularly the nationalization of foreign trade. However, the conservative religious leaders, businessmen, the council of Guardians (which ensures that legislation conforms with Islamic precepts) and many members of the Majlis maintained that the government

should play a minimal role. Although new appointments to the council of ministers and the changing character of the Majlis strengthened those elements in Government favouring more control of the economy by the state (in particular more land reforms, nationalization of trade and the spread of collective organization among the industrial work forces) the conservative elements in government (in particular the council of Guardians) succeeded in delaying radical reforms. In a vigorous press campaign at the end of 1985, the radicals alleged that the courts were overturning revolutionary measures and allowing major industries to be returned to their former owners. In January 1988, Ayatollah Khomeini decreed that government policies could over rule the Islamic law where this was in the interest of the state. In the following month a 13 member council to determine the expediency of the Islamic order was appointed to settle the dispute by majority vote whenever the Majlis and council of Guardian could not agree on the direction of the policy. However, despite the strength of the radicals in the third Majlis, the committee proceeded cautiously, seeking to maintain a consensus between conservatives and radicals.

India with one fourth of the Asia's population being the fifth largest economy has the second largest among emerging economies, based on purchasing power parity. India also ranks as the 11th largest economy terms of industrial output and has the 3rd largest pool of scientific and technical manpower. India is the main pillar of peace and security in the region, has closest historical ties with Iran since the rule

of Aryans. The evidence of the common civilization of the two countries was provided during the excavation in the valley of Sindh, which proved that the Indian people have been related to people of Iran in their origin and culture. The clue of economic ties between India and Iran was evident during the reign of Shahpur, the Great (310 – 379 AD). During his rule, the medical services had been exported to Iran. The king had invited Indian physician to practice in Gurdaspur Hospital in the southern Khuzistan province of Iran. In the medieval period particularly during the rule of Mughals, architects and artisans were brought from Iran to participate in building and construction activities. The design and construction of palaces, forts, mosque, tombs and public buildings are some finest example of the Indo-Iranian synthesis in architecture. However, with exception to the British era, when the Indian people were deliberately distanced from their neighbours, there was always an uninterrupted relationship between Iran and India.

In the modern time, before the emergence of the Islamic Revolution in Iran in 1979, the foreign policy of Iran was dominated by the “whims and fancies” of the then Shah of Iran and his tilt towards the United States. The advent of the Islamic Revolution in Iran in 1979 proved instrumental in transforming the complexion of Iranian foreign policy. Iran joined the Non-Aligned Movement soon after the revolution. Trade relation between India and Iran continued on the pattern of Indo-British trade agreement. India was the first country who sent official delegation to Iran and has stressed

on the importance of working together in further enhancing mutually beneficial trade and economic linkages as well as in promoting Regional Economic Co-operation which would be a factor for peace and stability in the entire region. 5

A major break through in Indo-Iranian relation was achieved in the wake of Indian Prime Minister, Mr. P.V. Narsimha Rao who visited Iran in the year 1993. During the visit Indian Prime Minister discussed and laid more stress on economic aspect of Indo-Iranian cooperation in future, especially maintaining the memorandum of Understanding (MoU) on the proposed multibillion-gas pipeline project. In terms of India's exports, the growth of exports to this region was far less than India's total export growth during 1970s and 1980s. This proves that the Indian exporting community could not exploit the opportunities available there to the full extent, for various reasons. 5

With the advent of new Economic Reform in India, the prospect of trade with rest of the world has improved in the past few years and economic cooperation between the two countries has expanded but still there are many untouched areas. Where negotiation is needed to strengthen the economic cooperation between India and Iran. India can play a key role in the reconstruction of Iran via participating in different sectors like, infrastructure, power, railways, ports, telecommunications etc. during the Iraq- Iran war India and Iran had signed a number of contracts for the promotion of industrial and technological cooperation. Where the prospects and opportunities are still very high. The business

opportunities for India in Iran are tremendous. Iran is now inviting foreign capital on a 100 percent equity basis and also provides guarantees for total repatriation of capital and technology, whenever the company wants. The established Indian companies in the fields of power, railways, ports, telecommunications, small scale and other employment oriented industries need to organize themselves to look at the opportunities in Iran.

/Purpose and Scope of the Study: -

The basic objective of the study is the furthering of the national and collective self-reliance of developing countries to solve their development problems. Greater collective self-reliance among developing countries will strengthen their economic, improve their terms of trade and will help to speed up the process of their development. Third world countries, taken together, possess enormous natural resources, greater capability to manufacture or produce nearly everything. These countries therefore stand to derive greater mutual benefit by working together and in close cooperation with each other. This cooperation may encompass the areas of trade, finance, manpower, food industry energy and technology.

In the present study a modest attempt made with the purpose of understanding and analyzing the major issues involved in economic cooperation between India and Iran. So as to provide a basis for development cooperation on a fairly stable basis. The principal objective of the present study is to study India's economic relations with Iran since 1991. It

aims at analyzing in some depth in the sectoral areas of each country's economy in which volume of trade and other types of economic cooperation could be further increased on rational basis for increasing the prospects of promoting bilateral cooperation. The premise of the study is that since India and Iran are developing countries with a wide agricultural base and are keen to diversify their economic structure, there is considerable potential for increasing economic cooperation. Iran started massive industrialization in the country after carrying huge foreign exchange by oil and since India has emerged as an industrial leader among the developing countries, there is much in common which could be developed shared and made available on an exchange basis particularly in terms of technology and supply of capital equipments for improved performance especially in agricultural and industrial sector for transforming their economic structure. There exists a complementarity between India and Iran rather than competitiveness. India is ahead in industrialization and Iran is in need of many industrial commodities. India is an oil dependent country while Iran has huge deposits of oil and India has a great scope of importing oil from Iran. Iran can also cater to the Indian requirement of gas, as Iran possesses the largest gas reserves.

Hypothesis: -

We have started the present research work on the following presumptions.

- (i) Trade relations between India and Iran have not been significant to the mutual advantage of trading partners during the study period.
- (ii) The concerned trading partners are not able to diversify the composition of traded commodities. Diversification in the export base from primary goods to manufactured products will prove helpful in furthering trade and economic relations.

Data Base Limitation and Methodology: .

The present research work is based on the secondary data obtained from various sources. The review of available published work on the subject has also been undertaken for the purpose of this study, we have used data collected mainly from Annual Reports of the Ministry of Commerce, Economic Surveys of the Government of India etc. studies and surveys conducted by Federation of Indian Chamber of Commerce and Industry (FICCI) and Indian Institute of Foreign Trade (IIFT) have also been utilized. From Iranian side, annual reports of Balance Sheet and Bulletin issued by the Central Bank of Iran have also been used. Data available from International Sources like United Nations (UN), OPEC, Middle East Economic Survey (MEES) and other agencies have also been used.

Simple statistical methods and models have been employed to test the significance of the various degrees of Economic and Trade relations. It is hoped that the study

would be useful in formulating our trade policies vis-à-vis the concerned economies in particular.

The methodology used is simple, analytical and involves calculation of percentages, arithmetical averages and the compound growth rate. Compound growth rates have been calculated for exports and imports of India and Iran during the period 1990s.

Basis of Trade: -

The fundamental basis of international trade lies in the fact that countries are endowed by nature with different elements of productive power. The geographical distribution of natural resources and manpower is such that even the present modern socio-economic system, no country can be regarded as self-contained and self-sufficient. The most developed and resourceful economies like U.S.A., Japan, U.K., and Germany etc. have to import a lot of their raw materials goods and services from other countries. International trade therefore plays an important role in satisfying the consumption demand of each and every country of the world.

After the end of Second World War, international trade was invented as the engine of growth. Since then the volume of world trade has grown exceptionally fast. The forces behind internationalization process have been strong in the form of international trade organization (ITO) and World Trade Organization (WTO). Technical progress in transport and communication has played an important role. The large-scale production has provided an opportunity to the world for

maximum utilization of economics of scale. Invention and innovation in capital as well as consumer goods production has played its dual role. This has improved the level of income worldwide. The high-income elasticities for different newly produced commodities have also widened the world market and played as a catalyst in the development of the international trade.¹

Trade is the maiden means that satisfy the need of the all regions and thus, it is the principal way to link a number of economies through the extension of market from national to international level. The study of trade behaviour comprises two types of analysis. The first type of analysis questions the realm of positive economies while the second one seeks to find out the way for welfare economy. The positive economies of world trade answer the question like, why do nations trade? What commodities do they trade? With whom do they trade? Why do some countries show spectacular export performance while others do not? The first type of issues therefore refers to the analysis of the determinants of the trade behaviour at the various levels of trade activities. The second type of question is concerned with normative perceptions as to what should be the composition of the importable and exportable commodities, the choice of importing and exporting firms, choice of trade strategies or policies etc. obviously normative analysis implies specification of the welfare criticism for the choice

¹ Siderston, B.D., *International Economic*, Macmillian Publishers, New York, 1980, P. 1

problem. Analysis of the issue first type may, of course provide answer to the questions of the other.)

Trade theory has developed in the both direction beginning from classical economists like Adam Smith (1776), David Recardo (1817), J.S. Mill (1948), Heckscher (1919), Ohlin (1933), Samuelson (1948), and many other up to modern times.

The first propounded of trade theory was Adam Smith who belonged to the school of classical. Before this theory, “Mercantilist Approach” regulated the international trade. The mercantilist theories believed that tariffs and quota are the best policy for international transactions or in other words they heavily relied upon restricted policies. They used tariffs and other restrictions before those commodities in which they did not have advantage in production and brought the terms of trade or basis of trade in their own favour. Under the regime of mercantilists trade policies formulated in such a way that *provided a safe guard to the competition*. The aim was to impose restrictions on the imports of the low price products in order to encourage domestic industries producing high price products.

Adam Smith discarded the all arguments of “mercantilist” and regarded the protectionist measures as the danger to the world trade. In his opinion protectionist methods are digressive towards trade. The protection measure the price of the world produce and hence decreases the volume of demand that produced negative impact on the level of investment and employment and restrict the growth

in the world production. Adam Smith assumed free economy or least control of government as the prime requirement for well-flourished international trade. He supported that type of system in which commercial policy draw no distinction between foreign commodity and therefore neither grants any special favours to the domestic goods nor any additional burden or foreign goods. Adam Smith regarded foreign trade as “vent for surplus”. If there is free trade, each and every surplus commodity will get its way through international trade.

It has been argued that it is the cost differences between two countries, which generate international trade. According to Adam Smith trade between two nations is based on the absolute cost advantage. When one nation is more efficient (or has an absolute advantage over) than another in the production of one commodity but is less efficient (or has an absolute cost disadvantage over) than another in the production of the other commodity then both countries can gain by international trade. A country should specialize in the production of that commodity in which it has an absolute cost advantage and export it and should not produce the commodity in which it has absolute cost disadvantage and export it from the other country.¹

After the publication of this view about international trade, Adam Smith became the first prophet in the field of international economics because of his vigorous attack on

¹ Dominick, Salvatore, *International Economics*, Macmillian Publishers, New York, 1983, P. 17

mercantilist restrictions and his alternative economic premises of laissez fair.

Though the concept of absolute cost advantage provided a new dimension to the international economies but this concept was not free from the criticism. Several economists put a question mark on its validity, if one country has an absolute cost advantage over the production of both commodities. Another Classical economist solved the problem in 1817 known as David Recardo. Recardo published his work "Principle of Political Economy" in 1817 in which he presented a new basis of international trade to solve the above problem. He recognized the law of comparative advantage based on the Adam Smith concept of "Absolute Cost Advantage". It is one of the most important and still unchanged laws of economics with many practical implications.

The "law of comparative advantage" new basis of international trade, states that even if one nation is less efficient than (has an absolute cost disadvantage with respect to) the other nations in the production of both commodities. There is still a basis for mutually beneficial trade. Recardo stressed that a country should to specialize in the production of that commodities in which it has comparative cost advantage rather than absolute cost advantage.¹

The Recardian comparative cost advantage theory of international trade was presented with reference to the domestic relative real labour cost values obtained in each

¹ *Ibid.*, P. 19

country in the pre-trade closed economy. Thus in the Ricardian Theory the comparison is made between the required amount of labour in the production of both commodities which are under consideration. The cost of production is not expressed in monetary terms but by reference to the man-hour of labour required to produce a defined quantity. Hence the relative value of goods is determined by the amount of labour that becomes the basis of the transaction of commodities internationally.

Despite a good effort made by Ricardo to solve the existing problems of basis of trade, the application of his theory of comparative cost may give rise to the production of certain commodities and import some other articles, even though it can produce them at lower cost than the country from which they import. Again either it is absolute cost advantage theory or comparative cost advantage theory, all gave an abbreviated account of the conditions of supply while it remained quite about demand side. It was J.S. Mill who answered this question giving the new concept of "law of reciprocal demand" that sometimes also called the equation of international demand.

Mill presented his discussion on the basis of reciprocal demand and recognized the 'demand' of a particular commodity as the basis for international trade. He explained that a country feels the need to export the national produce only when it demands some other commodity. In this way a country exchanges her produce for the produce of other countries at such values as are required in order that the

whole of her exports may exactly pay for her whole import demand.

A finishing touch to the classical model of international trade was given by Marshall and Edgeworth by adding the general equilibrium analysis explained by means of 'offer curves' on the assumption that the operation of monetary institutions did not in the long area seriously affect the dimensions of the real quantities or the forms of the real quantity functions. Thus for the first time a model of international trade flows were shown to depend not only comparative costs, i.e. supply but on the conditions of demand.

The basis of international trade provided by different classical economists from Adam Smith to Ricardo, Mill to Marshall and Edgeworth dominated international economic thought for over a century despite its worldwide criticism. It was replaced by a new thought that evolved as a result of Heckscher's article "The effect of foreign trade on the distribution of income" in 1919 and Ohlin's book international and inter-regional trade in 1933.

Heckscher-Ohlin presented their theorem, a new basis for international trade. According to Ohlin the immediate cause of international trade is the differences in commodity prices, which in turn is due to the differences in factor prices. He further stated that the differences in factor prices are due to the supply of a particular factor of production in a country. A country with abundant supply of labour pay low prices to labour and high prices to capital and therefore

specialize in the production of labour intensive commodities and export it for capital intensive commodities.¹

The factor endowment theory postulates that the difference in relative factor abundance and price is the cause of pre-trade difference in relative commodity prices between two nations. This difference in relative factor and relative commodity prices between two nations is translated into a difference in absolute factor and commodity prices. It is this difference in absolute commodity prices that is the immediate cause of trade.

Kravis advanced the idea that a substantial part of international trade is an exchange between goods available in one or a few nations but not in other a very close concept to availability he referred to two main types of goods. Firstly goods are not available in absolute sense in the country and secondly if available it has high inelastic domestic supply due to a very high cost of production in the domestic market. It is thus the necessary of the commodity that becomes the basis for trade.

In this type of situation where in availability of commodity is the prime cause of emergence of international trade, technological progress plays an important role and it provides with the help of the technological progress new commodities are produced and existing commodities get most recent improvements. Demonstration effect creates an almost instantaneous demand abroad for new products. Thus a country's export industries are likely to embody higher rates

¹ *Ibid.*, P. 100-101

of technical progress than the same industry in its trading partner countries.

The availability explanation of trade flow also looks strong because for the real world market the concept of free trade is like a dream as government controls and cartels tend to shut out imports that could be produced even at a higher cost with the result that imports may be confined to goods unavailable only at a formidable cost.

The above discussion about the basis of international trade presented by different economists expose that there has been a continuous change in the basis of trade. No theory regarding the basis of trade is complete in itself. Broadly we have found two important features, which are common in almost all the theories.

- (i) No theory has provided a complete solution to the determinant of foreign trade but a partial truth. All the theories failed in determining the relative importance of the different determinants of trade behaviour. The real world markets free from the all assumptions made in the theories do not provide any safe home to any theory. No theory is capable in providing information regarding the distortions introduced by tariffs, subsidies and trade policies in general. The government policies have been proved stronger determinant of trade behaviour than any other basis provided by factor proportions and factor endowments.
- (ii) The institutional framework of a country plays an important role in determining the direction of the

economic activities. Most of the theories discussed above are based on the institutional framework of developed countries while ignoring the economic conditions of the developing countries. In this way the basis of international trade provided by the above theories do not suit the Indian and Iranian economy and have less operational value to them. Therefore a new basis of trade is still needed that suits the institutional framework of developing countries and have various specific aspects of the trade activity in the developing country such as planning strategy, institutional structure, market imperfection etc.

Chapter -2

INDIA REPUBLIC

Geographical location and climate condition: -

India is one of the oldest civilizations with a wide variety and rich cultural heritage. It covers an area of 32, 87,263 Km extending from the snow covered Himalayan heights to the tropical rain forests of the south. As the seventh largest country in the world, India stands apart from the rest of Asia, marked off as it is by mountains and the sea, which give the country a distinct geographical entity. Bounded by the great Himalayas in the north, it stretches southwards and tropic of cancer, tapers off into the Indian Ocean between the Bay of Bengal on the east and the Arabian Sea on the west.

Lying entirely in the northern hemisphere, the mainland extends between latitudes $8^{\circ}4'$ and $37^{\circ}6'$ north longitudes $68^{\circ}7'$ and $97^{\circ}25'$ east and measures about 3214 Km from north to south between the extreme longitudes. It has a land frontiers of about 15,200 Km. the total length of the coastline of the mainland, Lakshadweep Islands and Andaman and Nicobar Islands is 7,516.6 Km.¹

There are four broad climatic regions based on rainfall. Particularly, the whole of Assam, Meghalaya and the west coast of India, lying at the foot of the western Ghat and extending from the north of Bombay to Trivandrum are area of very heavy rainfall Cherrapunji, in Meghalaya, average 450 inches, annually over 74 year period. The largest amount ever recorded in Asia and the second largest in the world. In

¹ *India - A Reference 2001*, Government of India, New Delhi, 2001, PP. 01

contrast to these contacts, the Rajasthan desert, extending to Kutch as well the high Ladakh Plateau of Kashmir are regions of low precipitation receiving only nominal amount of rainfall, the Tar Desert in Rajasthan for example receives mere four inches of rain annually. In between these regions at the extreme end of the rainfall, ranges are two areas one of moderately high and one of low rainfall. The former consists of a broad belt in the eastern part of the peninsular plateaus which seasonally moves northward of the Indo-Gangetic plain and then southward, toward the coastal plains in this belt the annual rainfall averages around 60 inches. The later constitutes an area extending from the Punjab plains across the Vindhya Mountains into the western part of the Deccan and fanning out into the Karnataka plateau this belt receives about 30 inches of rainfall in a year.¹

Language and People: -

The most comprehensive data on languages was collected at the time of 1961 census. According to these census figures, there were 187 languages spoken in India out of these, as many as 94 languages are spoken by less than 10,000 persons each and 23 languages together account for 77 percent of the total population of the country, of these 23 languages, 14 have been specified in the eighth schedule of the constitution of India. These languages are Assame, Bangali, Gujrati, Hindi, Kannada, Kashmiri, Malayalam, Marathi, Oriya, Punjabi, Sanskrit, Tamil, Telugu, and Urdu. English has also been included in the list of specified

¹ *Encyclopedia Britannica*, 15th edition, Vol. 1-21, 1987, PP. 2-7.

languages. Three more languages have been added to eight schedules by a parliamentary act of 20th August 1999. These languages are Nepali, Konkani and Manipuri, Hindi along with English has been given the status of India's official languages.¹

Religion is a way of life in India and it affects the social, economic and political structure of society. Different religions followed by different people living in different areas of the country have created diversity of culture and brought about changes in life style of the masses. India is the birth place of four major religions Hinduism, Buddish, Janisim, and Sikkism along with Christians, Muslims, Parsis are also major religion of India.

The Hindus are the preponderant majority in most of the states and union territories of India. According to 1991 census figures here were 687.6 million, Hindus which accounted for 82.41 percent of the total population of the country. The Hindus of India account for about 12 percent of the world population ranking below those professing Christianity and about equal with the followers of Islam but much above other religions. According to 1991 census figures the Muslims population numbered 101.59 million which worked out to be 11.67 percent of the total population of India. Muslims constitute the largest minority community of India. India's 6.39 million Buddhists constitute only 0.77 percent of the total population of the country. 3.35 million

¹ Khullar, D.R., *India-A Comprehensive Geography*, Kalyani Publishers, New Delhi, 2002, PP. 208-209

Jains of India are widely spread in the western parts of the country form more than 2 percent of the population. About one million Parsis, Zorastrians by religion are the smallest religions group and form just 0.4 percent of the population of India.¹

Population: -

As per 2001, census the population is over 102.7 crores or over 1.02 billion. This number has grown at a rapid rate in the post beginning with 1921, but more particularly since 1951, when the population at 36.1 crores was about one third of that at present. This growth rate since 1951 has been around 2 percent. It was particularly high at about 2.5 percent during the two decades (1961-71 and 1971-81). This fast rise in population has been caused by growing gap between a slowly falling birth-rate and a rapidly declining death rate. As between 1951 and 1998 while the birth rate came down from about 42 to about 27 per thousand population the death rate went down from about 2.3 to as low as about 9 per thousand population.

Since the last census in 1991, the population has grown at the rate of about 2 percent. As a result, the size of population has grown further. It is, at present more than one hundred crores (or more than a billion) with the birth rate at present at 27 and the death rate at 9 per thousand of population. The population has since 1991, grown at a rate of just 1.93 percent.

¹*Ibid.*, PP. 210-17

The density of population has been rising since 1921. The increase has indeed a rapid one from 1951 onwards. As per the census, it is 324 in 2001, as against 274 in 1991, 216 in 1981, 177 in 1971, 142 in 1961 and 117 in 1951. This however, is the all India picture.¹ 2 3

According to the 2001, census the population of the country is over 102 crores. This accouts for around one sixth of the world population, which means that every sixth person in the world is an Indian. Next only to china, India has the largest population in the world. While in die's population is 16.7 percent of the worlds population its land area is only 2.4 percent of the world land area. Thus a significant proportional of the world population is found clustered in a small geographical area.²

Natural Resource: - 2 3

India is endowed with a rich variety of minerals, large size and diverse geological formations have favoured India in providing wider variety of minerals. The county has fairly abundant reserves of coal, iron and mica, adequate supplies of manganese ore, titanium and aluminum, raw materials for factories and limestone's, but there is a deficiency in ores of copper, lead and zinc. There are workable deposit of tin and nickel. India earns a lot of foreign exchange by exporting a large variety of minerals such as iron ore, titanium, manganese, bauxite, granite and a host of other minerals. At the same time India has to depend upon imports to meet her

¹ Ahmad, Naseem, *India State of Economy*, Kilaso Books Publication, New Delhi, 2004, PP. 24-25

² *Ibid.*, P. 31

requirements of some other minerals such as copper, silver, nickel, cobalt, zinc, lead, tin, mercury, limestone, platinum, graphite and so many other minerals. There are 4075 mine in India, out of which 522 are fuel (coal and lignite) mines, 714 metallic minerals mines and 2859 non-metallic minerals mines. The minerals sector employs over eight lakh persons and accounts for 11.5 percent of the country's industrial output and nearly three percent of the gross domestic product.¹

India's Import of Principal Commodities:-

Table 2.1 Reveals that there has been a persistently rising trend of imports, which is the result of both internal and external factors. During the seventies as a result of the sharp hike in oil prices by the OPEC first during 1973-74 and then again in 1979-80, the value of petroleum product imports rose sharply not only during the seventies but its impact was felt even during the eighties as well. The economy also suffered a major drought in 1979-80.

During the eighties, a number of factors were responsible for pushing up imports. There were higher outflows of foreign exchange consequent upon the hike in petroleum product prices as a part of the legacy of the preceding decades, severe shortages on account of drought of 1987, the growing pressure of demand accompanied with the stepping up the real growth of the economy and the policy of liberalization adopted by the Government, All these factors

¹ Khullar, D.R., *India-A Comprehensive Geography*, Kalyani Publishers, New Delhi, 2002, PP. 400

INDIA'S IMPORTS OF PRINCIPAL COMMODITIES

Table : 2.1

Commodity	1960-61	1980-81	1990-91	1995-96	1996-97	1997-98	1998-99	1999-2000
Petroleum oil and lubricant	69	5264	10816	25173	35620	30341	26919	45421
Edible oil	04	677	326	2260	2929	2765	7589	7984
Fertilizers and fertilizer manufacture	13	818	1766	5628	3235	3799	4248	5542
Chemical elements & compounds	39	358	2289	9403	10382	1111	1640	1369
Pearls, precious and semi-precious stones, unwork/work	01	417	3738	7045	10384	12421	15820	23296
Iron & steel	123	852	2113	4838	6866	5281	4474	4341
Non-ferrous metals	47	477	1102	3024	3925	3420	2513	2357
Capital Goods	356	1910	10466	28289	29868	28016	32304	23399
Non-electrical machinery apparatus & appliances	203	1089	4240	14371	14801	15029	14267	13087
Electrical machinery, apparatus and appliances	57	260	1702	1292	1155	1406	1771	1719
Transport equipment	72	472	1670	3697	5269	3907	3358	2932
Total	1122	12549	43198	122678	138920	154176	178332	204583

Sources- Industrial Policy and Statistics 2001. Published by office of the Economic Adviser Ministry of Commerce and Industry, Government of India, New Delhi.

led to relatively larger dependence of the economy on imports. Imports, which aggregated to Rs1634 crores 1970-71, rose sharply to Rs 12,549 crores in 1980-81; the annual growth rate was 19.2 percent during the decade. During the eighties and more especially after 1984-85 when Prime Minister Rajiv Gandhi followed the policy of liberalization, imports zoomed forward to Rs 43,190 crores in 1990-91. During the eighties (1980-81 to 1990-91), the annual rate of growth of import was as high as 13.1 percent. During 1990-91 to 1998-99, import grows at the annual rate of 19.4 percent.

26 Petroleum oil and lubricants is main importing item of India. Which were responsible for sharp increase of India's total imports. In 1960-61, India was import petroleum oil and lubricants of worth of Rs69 crores only and it rose to Rs 5264 crores in 1980-81 due to merely the sharp hike in oil prices by the OPEC in 1973-74 and again 1979-80. From 1980-81 to 1990-91 the import of petroleum oil in absolute terms is almost double i.e. increased from Rs 5264 crores in 1980-81 to Rs 10816 in 1990-91. the import of the petroleum oil has been increased persistently. In 1995-96, India had import petroleum oil of amount Rs25173 crores increased to Rs45421 crores in 1990-2000. The average annual growth rate of import during last four year of decade was recorded 21.03 percent per annum. But in year 1997-98 and 1998-99 the growth rate of oil import was negative over the previous year i.e.-14.82 and -11.27 respectively.

Edible oil is an important item of India's import. The import of edible oil has been increased significantly over the

last four decade. In 1960-61 there was only import of edible oil worth of Rs 4 crores increased to Rs 677 crores in 1980-81, then it brought down to RS 326 crores in 1990-91, there was drastic increase in import of edible oil from 1995-96. In 1995-96 India import edible oil of worth of Rs 2260 crores increased at the growth rate 50.91 percent per annum and reached to amount Rs 7984 crores in 1999-2000. During the last decade, the import growth rate of edible oil was recorded highest 174.46 percent from the preceding year in 1998-99. It is due to poor performance of Indian agriculture in that year. The lowest growth rate of import recorded 5.59 percent over the previous year in 1997-98.

Following the adoption of the new strategy in Indian agriculture, the imports of fertilizer were stepped up. In year 1960-61 India import fertilizer worth of Rs. 13 crores. Despite of increase of domestic production of fertilizer, import of this item had increased to Rs. 818 crores in 1980-81. With the sharp increased in the international prices of fertilizer during 1980 -81 to 1990 -91, the import of fertilizer increased from Rs. 818 to Rs. 1766 during the same period. As a result of liberalization of the Indian economy, the import of fertilizer jumped from Rs, 1766 in the year 1990 -91 to Rs. 5542 crores in year 1999-2000. During the last four year of last decade, the average annual growth rate of fertilizer import was registered 4.29 percent per annum. The last year of decade recorded the highest growth rate of fertilizer import i.e. 30.46 percent over the previous year.

During the last four decade, there has been an increase in the imports of chemical elements and compounds. In 1960-61 there was only Rs.39 crores import of chemical element and compounds but it increased to Rs.358 crores in 1980-81 and further increased to Rs. 2289 crores in 1990-91. There was drastic growth recorded 540 percent over the one decade from 1980-81 to 1990-91. It is due to merely; chemical elements and compounds used, as an input for many industry²⁸ and domestic production did not satisfied the demand of industry. Till 1996-97 the import of this item grew at a very fast rate but from 1997-98, the import of this item became ebb. In 1997-98, the growth rate of import chemical element and compounds recorded negative i.e. -89 percent over the previous year. The average annual growth rate of import during the last four year of decade recorded -11.94 percent per annum. It means that now, India is self sufficient in the production of chemical elements and compounds. ²⁹

Due to the increasing demand of the gems and jewelers industry, the imports of pearls, precious and semi-precious stones have increased significantly. In fact, this accounted for 11.3 percent of import expenditure in 1993-94 and occupied the second place. In 1980-81 there was Rs.417 crores expend on the import of this item. It rose to Rs. 3738 in year 1990-91. The expenditure on the import of pearls, precious stones had been increase over the years. The average annual growth rate of import of this item increases at the 35.4 percent per annum during the last four years of last

decade. The import of pearls, precious stones was Rs.3788 crores in 1990-91 increased to Rs.23296 in year 1999-2000, there was 528.2 percent growth registered during the same period. Part of these imports is meant to satisfy the demand of the affluent sections and part of these imports serve as raw material for the handicrafts exports industry.

Despite increasing domestic production of Iron and steel, substantial quantities continue to be imported as domestic production has failed to keep pace with the rising demand. While in absolute term, the import of iron and steel increased from Rs.852 crores in 1980-81 to Rs.4371 crores in 1999-2000. However, the expenditure of import on this item had been increased significantly up to year 1996-97 but after that it had been declined. There was average growth of import of this item increase at the rate of only 0.31 percent per annum during the last four year of the decade. Iron and steel is very essential goods for the development of any country. Iron and steel industry highly capital-intensive industry and it required heavy investment. Iron and steel industry performed very well during the last three-year of decade.

India is only 15th in the world ranking of steel producers. In terms of per capita consumption, Indian average of 11 kg of steel compares poorly with 685 kg in the USA 428 kg in Russia 623 kg in Sweden and 494 Kg in Japan.

Apart from import of iron and steels, India also import non -ferrous metals. In absolute term the import of non -

ferrous metals amounted Rs.477 crores in year 1980 –81 have gone up steadily with every year and are about Rs.2357 crores import in year 1999–2000. The vast programme of industrial expansion, development of railways and hydro-electric projects necessitates import of metals on such a large scale. With improvement in capacity utilization of our steel plants, import of iron and steel should be cut down. The average import of non-ferrous metal recorded –3.94 over the last four years of the decade. 3.5

In a country which is rapidly industrialization her economy imports of machinery are bound to increase machinery include electrical and non-electrical equipment as also locomotives. In year 1980–81, the total import of non-electrical machinery apparatus in absolute terms only Rs.1089 crores increased to Rs.4240 crores in the year 1990–91 and further increased to Rs. 13087 crores in 1999–2000. There was registered 208.65 percent growth during 1990–91 to 1999–2000. Although, there was drastic change in growth rate in last decade but the average annual rate of growth of import during the last four year of the decade recorded negative growth i.e. –2.2 percent per annum. The causes of these changes during nineties are diversification of industries as it is the demand of new economic order, the policy of import substitution and self reliance in the field of industrial development has also increase the import of machinery. The emphasis of Government policies on loosening of norms and different condition on import of technology for encouragement of export Indian goods have also played and

important role in the increment of import of tools and machinery during 1990s.

The increasing import of machinery an indicator of India's growing industrialization as well as failure to develop her own technology and indiscriminate in import policy.

Import expenditure on electrical machinery apparatus and appliances rose considerably from Rs 260 crores in 1980-81 to Rs 1719 crores in 1999-2000. In percentage terms, its share was 2.07 percent in 1980-81. While in 1990-91 it was 3.93 percent but it falls to 0.84 percent in 1999-2000. It is due to during eighties and mid of nineties the import expenditure merely were large on information technology industry and later half of nineties the IT industry became self-sufficient.

Transport equipment has been increased considerably during the last four decades. In year 1980-81, India import transport equipment only worth of Rs. 472 crores and it rose to Rs1670 crores in 1991 then it pick up speedily and touched Rs.5267 crores in year 1996 -97. During 1991 to 1997 the large amount of expenditure on this item merely due to development of rail transportation. So far as rate of growth of import of transport equipment is concerned it was increased up to 1996-97 but last three year of the decade became a negative growth rate over the previous year. The highest growth rate of import of this item recorded 42.52 percent over the preceding year in 1996 -97.

From the above analysis we find that, the beginning of the second five-year plan in 1956–57 brought about a considerable change in the composition of imports. The second plan introduced a programme of industrialization with heavy emphasis on the development of capital and basic industrial. As a result, it became necessary to import capital equipment in large quantitative. After some years, spare parts materials and machinery had to be imported in substantial quantities to keep the equipment in working order. Simultaneously, the expenditure on import of petroleum oil and lubricants has been increasing significantly it is due to not only increasing demand of transportation sector but also by industrial sector which is run by petroleum product. The large amounts of expenditure on import of fertilizer because of growing demand of food and intensive cultivation. Thus the maintenance imports entered into the import structure of the country in a big way.

India's Export of Principal Commodities: -

Composition of Indian exports is given in the following table. The trend over the year has been a decline in the importance of agriculture and allied products and a substantial increase in the importance of manufactured products. For instance, the share of agriculture and allied products in total exports declined considerably from 44.2 percent in 1960–61 to 18.5 percent in 1998–99 while that of manufactured products increased from 45.3 percent to 78.7 percent over the same period. This clearly depicts the changing production structure of the economy.

INDIA'S EXPORTS OF PRINCIPAL COMMODITIES

Table : 2.2

Commodity	1960-61	1980-81	1990-91	1995-96	1996-97	1997-98	1998-99	1999-00
Agricultural allied product	284	644	NA	21138	24239	25419	26104	24576
Coffee, Tea and Mate .	131	229	1322	2674	2466	3572	3993	3130
Spices .	17	51	239	794	1202	1410	1633	1702
Rice	NA	07	4624	4586	3172	3371	6281	3105
Fish and fish preparation	05	40	960	3381	4008	4487	4369	5114
Cashew and Kernals	19	76	447	1237	1288	1407	1627	2451
Dres and Minerals	52	217	1497	3061	3062	3185	2827	2975
Mica	01	21	35	27	40	25	43	41
Iron Ores	17	155	1049	1721	1770	1706	1615	1151
Manufactured Goods	291	1021	23736	80219	88528	99824	109787	126329
Textile Fabric and Manufactures	73	192	6832	24149	27793	32109	35581	40521
Cotton Yarn. Fabric made up etc.	65	188	2100	8619	11082	12132	11661	13602
Readymade Garments of all textile materials	01	39	4012	12295	13324	14405	18364	20809
Gems and Jewellery	01	59	5247	17644	16872	19867	24945	33089
Chemical and allied	07	39	2111	9849	11463	13692	14211	16509
Machinery transport and metal manufactures	22	261	3872	14578	17431	19528	18479	21435
Total	642	6711	32553	106353	118817	130101	139753	162925

Sources- Industrial Policy and Statistics 2001, Published by office of the Economic Adviser Ministry of Commerce and Industry, Government of India, New Delhi.

Exports of India are broadly classified into three categories.

- (i) Agriculture and allied products which include coffee, tea and mate, spices, fish and fish preparation cashew and kernels etc.
- (ii) Ores and minerals include mica and iron ores.
- (iii) Manufactured goods include textiles and readymade garments, gems and jewelers, chemical and allied and machinery transport and metal manufactured including Iron and steel etc.

Exports of Agriculture and its allied products: -

Coffee, tea and mate:

Tea and coffee are important items of Indian exports. Tea and coffee had the first position in India's export in certain years. In the year 1960-61, India's export coffee, tea and mate was only worth of Rs.131 crores and increased to Rs.3130 crores in 1999-2000. In the year 1980 -81, there was Rs.229 crores export of tea and coffee and picked up to touch Rs. 1332 crores in year 1990-91 there was 447.2 percent growth registered during the same period. During the last five years of decade the annual growth rate of export of tea and coffee performed well, except the years 1996 -97 and 1999 -2000 recorded negative growth over the previous year that is -7.7 and -21.61 percent respectively. The share of tea and coffee in India's total export of agriculture and agricultural product in year 1999 -2000 was 12.7 percent.

Spices are an important item of India's exports of Agricultural and allied product. In year 1980-81 there was only export of spice accounted Rs.51 crores increased to Rs.239 crores in 1990-91 and further increase to Rs.1702 crores. Although, in absolute terms the export of spices has been increase over the year but so far as growth rate of spices export is concerned it was decreased during the last four year of decade. In the last year of decade registered lowest growth over the previous year i.e. 4.22 percent. The average annual growth rate of export during the years from 1996-97 to 1999-2000 recorded 22.17 percent.

Since the mid 1960s the traditional agricultural practices are gradually being replaced by modern technology and farm practices in India and veritable revolution is taking place in India. Initially, the new technology was tried in 1960-61 as a pilot project in seven district and was called intensive agricultural district programme (IADP). Later the high yielding varieties programme (HYVP) was also added and the strategy was extended to cover the entire country and the strategy called "Green Revolution". HYVP was used to only five crops -Wheat, Rice, Jawar, Bajra and Maize. 35

The production of rice, which had increased slowly in the early period of the "Green Revolution", has started picking up of late. The average annual production of rice rose from 35.1 million tones in the third plan to 78.7 million tones in Eight plan and further increase to 86.0 million tones in 1998-99. The growth rate of Indian export of rice shows

mixed trends during the last decade. The record export of rice in year 1998 –99 was Rs62.81 crores.

Fish and fish preparation, now emerge most an important item of Indian export. The export of this item accounted significantly since 1991. In year 1990–91 India export only worth of Rs239 crores after that it had been increased remarkably touched Rs5114 crores in 1999–2000. The trends of rate of growth of export per annum increase at increasing rate except the year 1998–99-recorded negative growth from the previous year i.e. 2.62 percent. The average annual rate of growth of export during the last four year of decade was registered 11.23 percent. In year 1999–2000, the share of fish and fish preparation has contributed 20.8 percent of India's total export of agricultural and allied product.

Cashew and kernels is another an important item of Indian export of agricultural product. In absolute terms, the export of cashew and kernels showed the increasing trends but the rate of growth from the previous year was ebb in the year 1996–97 registered a lowest growth rate i.e. 4.12 percent. It was increased from 1997-98 and 1999-2000 increased significantly accounted 5.64 percent from the preceding year.

Iron ores and Mica are contributing major part of India's export of ores and Minerals. India export ores and mineral was worth of Rs. 17 crores in year 1960–61 increased to Rs.1497 crores in year 1990-91 and further increased to Rs.2975 crores in 1999–2000. Iron ores has

along contribute major part in year 1960–61 India export iron ores of Rs.17 crores increased to Rs. 1049 crores in 1990–91 and further increased to Rs.1151 crores in 1999–2000. The record exports of iron ores i.e. Rs.1770 crores in the year 1996–97, this is an unhealthy development. India should increase the share of steel in export by utilizing iron ores in her own steel plant.

Manufactured goods always share bigger part of Indian total export. In the year 1980–81 it accounted Rs.1621 crores increased drastically Rs.23736 crores in year 1990–91 and further increased to Rs.126329 crores in year 1999–2000. The share of manufactured goods in total India's export was 15.21 percent in year 1980-81 increased to 72.91 percent in 1990–91 and further increased to 77.53 percent in year 1999–2000. From the above analysis we find that the manufactured goods contribute considerable part of earning from exports.

3 / Textile fabric and manufactures occupied first place in total export of manufactured goods. up to eighties textile industry could not performed well due to relatively high cost in Indian textile industry. India found it difficult to capture the international market. In fact high costs were due to rising labour costs and use of old and work out machinery. During nineties textile fabric and manufactures were successes to improved their quality lowering in cost of production as a result they compete in the international market. In year 1960–61, the India's total export of textile fabric and manufacture goods was Rs.173 crores increased to Rs.192 crores in 1980–81. This small figure jump to Rs.6832 crores

in 1990–91 and further, increased touched Rs.40521 crores. The share of textile fabric and manufacture in total India's export in year 1999–2000 was 24.87 percent. It means that they contribute one fourth of India's total export.

Cotton yarn, fabric made ups is important item of Indian export. Before 1985, this item did not play any significant role due to inferior quality, high cost of production and old technology. But after liberalization of Indian economy, exports of cotton yarn have increased on account of their competitiveness in the international market. In year 1980–81, India's export of cotton yarn only worth of Rs.188 crores and this figure jumped to Rs.2100 crores in year 1990-91. up to year 1996–97 the growth rate of export showed increasing trend but after that the rate of export of this item declined even in year 1998–99 registered a negative growth rate i.e. –3.88 percent from the previous year. Perhaps, sluggish period of export of this item during last three years of the decade but they registered average annual growth rate of export 10.16 percent per annum during the last four years of the decade.

The Indian textile industry is predominantly cotton based with 65 percent of the fabric production in the country being accounted for by cotton. Production of raw cotton varies from year to year depending upon rainfall and weather conditions and price fluctuations in raw cotton effect entirely in the organized sector and over the years, it has been showing a steadily rising trend as for example, from 1,600 million kg in 1988–98 to over 2,980 million in 1997–98. The

fabric production has also recorded an increasing trend over the years from 20,600 million meters in 1989–90 to 36,700 million meters in 1996–97. In the production of fabrics, the decentralized sector accounts roughly 95 percent and the mill sector has approximately 5 percent share only.

India's exports of readymade garments had picked up much more swiftly in recent years. The value of readymade garments was hardly Rs.1 crore in 1960–61. It rose too rapidly since then and touched Rs. 20809 crores in 1999–2000. The average annual growth rate of export of this item accounted 14.31 percent per annum during the last four years of the decade. The lowest rate of growth of export over the previous year mentioned 8.11 percent in 1997–98 due to the world recession phase. In the year 1999–2000, the share of readymade garments has contributed 12.8 percent of India's total export.

Export of gems and jewelry has emerged as an important foreign exchange earner in recent years. In 1980–81 exports of gems and jewelry were only Rs.59 crores, increased to Rs.5247 crores in the year 1990–91 and further increased to Rs.33089 crores in the year 1999–2000. Gems and jewelry has 20.3 percent of India's total export. In gems and jewelry, it always shows the increasing trends except the year 1996–97. In 1996–97 the growth rate of export of this item registered negative i.e. –4.37 percent from the preceding year. The annual average growth rate of export accounted 17.89 percent per annum during the last four years of the last decade.

The results of industrialization are also expressed through increases in the exports of chemical and allied products from Rs.39 crores in 1980-81 the exports of chemical and allied products rose to Rs.2111 crores in year 1990-91 further increased to Rs.16509 crores in year 1999-2000. They contributed 10.13 percent of India's total export earnings.

The exports of Machinery, transport and metal manufacture goods also include iron and steel, even up to 1980-81. Exports of this group were a meager Rs.261 crores, but these exports started picking up and by 1990-91. They were of the order of Rs.3872 crores. During 1999-2000, these exports have shot up to Rs.21435 crores, accounting for 13.15 percent of total exports. This is a commendable achievement.

From the above analysis, India's exports which has witnessed an improvement as there has been an appreciable rise in exports of certain items during the last five decade the increase has been spread over number of commodities such as engineering goods, chemical and related product, gems and jewelry, textiles etc.

India's Direction of Trade during 1990s: -

From the table 2.3, we can observe that India's total exports to Russia has declined alarmingly i.e. from Rs.5255 crores in 1990-91 to Rs.4123 crores in 1999-00, showing an overall decline of 21.54 percent. The collapse of the Russian market has a major set back to India's exports effort.

INDIA'S EXPORT TO MAJOR COUNTRIES

Table : 2.3

Countries	1990-91 AT/SP	1991-92 AT/SP	1992-93 AT/SP	1993-94 AT/SP	1994-95 AT/SP	1995-96 AT/SP	1996-97 AT/SP	1997-98 AT/SP	1998-99 AT/SP	1999-00 AT/SP	Average	Compound growth
USA	4797/ 14.73	7802/ 17.71	10138/ 18.83	12542/ 17.98	15784/ 19.09	18466/ 17.36	23271/ 19.58	25282/ 19.73	30289/ 21.67	36980/ 22.69	18535.1/ 18.93	25.474
UK	2128/ 06.50	2806/ 06.37	3514/ 06.54	4326/ 06.20	5305/ 06.41	6726/ 06.32	7266/ 06.11	7956/ 06.11	7806/ 05.88	9335/ 05.72	3716.8/ 6.21	17.855
Japan	3039/ 09.33	4071/ 09.24	4160/ 07.74	5460/ 06.20	6363/ 07.69	7411/ 06.96	7121/ 05.99	7056/ 05.42	6950/ 04.97	7379/ 04.52	5901/ 6.80	10.388
Russia	5255/ 16.14	4043/ 09.18	1759/ 07.74	2037/ 07.82	3534/ 04.27	3496/ 03.28	2880/ 02.42	3542/ 02.72	2965/ 02.12	4123/ 02.53	3363.4/ 6.32	-2.659
Belgium	1259/ 03.26	1643/ 03.73	1979/ 03.68	2644/ 03.79	3104/ 03.75	3748/ 03.52	3879/ 03.26	4518/ 03.47	5418/ 03.87	5984/ 03.67	3417.6/ 3.6	18.910
Germany	2549/ 07.83	3131/ 07.10	4133/ 07.69	4828/ 06.92	5488/ 06.63	6614/ 06.21	6620/ 05.57	7155/ 05.49	7792/ 02.49	7809/ 04.79	5611.9/ 6.07	13.246
France	766/ 02.35	1049/ 02.38	1366/ 02.54	1582/ 02.26	1828/ 02.26	2499/ 02.34	2542/ 02.13	2823/ 02.16	3491/ 03.63	3987/ 02.44	2193.5/ 2.44	20.116
Africa	688/ 02.11	958/ 02.17	1441/ 02.68	1816/ 02.60	2074/ 02.50	3584/ 03.36	3470/ 02.93	4082/ 03.13	5081/ 03.63	4951/ 03.03	2814.5/ 2.84	24.518
Asia*	4665/ 14.33	6503/ 14.76	9342/ 17.40	14430/ 20.68	16610/ 20.09	22613/ 21.26	27178/ 22.87	27663/ 21.26	26815/ 19.18	33180/ 20.36	18899.9/ 19.21	24.356
Total including other	32553	44041	53688	69751	82674	106353	118817	130101	139753	162925	94065.6	19.594

(US million dollar)

Source: Various issues of Economic Survey published by government of India

Note: AT –Absolute Term

SP –Percentage share in total Export.

INDIA'S IMPORT FROM MAJOR COUNTRIES

Table : 2.4

Countries	1990-91 AT/SP	1991-92 AT/SP	1992-93 AT/SP	1993-94 AT/SP	1994-95 AT/SP	1995-96 AT/SP	1996-97 AT/SP	1997-98 AT/SP	1998-99 AT/SP	1999-00 AT/SP	Average	Comp. growth
UK	2894/ 6.69	2963/ 6.19	4105/ 6.47	4818/ 6.59	4895/ 5.44	6415/ 5.22	7578/ 5.45	9082/ 5.89	11028/ 6.18	11828/ 5.78	6560.6/ 5.99	16.932
USA	5245/ 12.14	4919/ 10.28	6219/ 9.81	8584/ 11.74	9124/ 10.14	12916/ 10.52	13085/ 9.41	13814/ 8.95	15314/ 8.58	15728/ 7.68	10494.8/ 9.92	12.297
Japan	3245/ 7.51	3375/ 7.05	4136/ 6.52	4774/ 6.53	6405/ 7.11	8254/ 6.72	7765/ 5.58	7972/ 5.17	10373/ 5.81	10208/ 4.98	6650.7/ 6.298	13.580
Belgium	2718/ 6.23	6422/ 13.43	5219/ 8.23	5881/ 8.04	3789/ 4.21	5693/ 4.64	7994/ 5.75	9916/ 6.43	12103/ 6.78	15058/ 7.36	7479.3/ 7.11	20.952
France	1304/ 3.01	1516/ 3.17	1722/ 2.71	1860/ 2.54	1933/ 2.14	2812/ 2.29	2737/ 1.97	2965/ 1.92	3027/ 1.69	3194/ 1.56	2307/ 2.3	10.465
Germany	6473/ 14.98	3846/ 8.04	4799/ 7.57	5615/ 7.68	6867/ 7.63	10520/ 8.57	10050/ 7.23	9398/ 6.09	9006/ 5.05	8089/ 3.95	7466.3/ 7.67	9.849
Australia	1464/ 3.38	1445/ 3.02	2477/ 3.90	2068/ 2.82	2873/ 3.19	3418/ 2.78	4676/ 3.36	5501/ 3.56	6079/ 3.40	4677/ 2.28	3467.8/ 3.16	13.775
Saudi Arabia	2899/ 6.71	3552/ 7.42	4333/ 6.83	4836/ 6.61	4928/ 5.47	6773/ 5.52	9832/ 7.07	9322/ 6.04	7705/ 4.32	9049/ 4.42	6322.9/ 6.041	14.555
Russia	2548/ 5.89	1796/ 3.75	737/ 1.16	806/ 1.10	1584/ 1.76	2864/ 2.39	2231/ 1.60	2521/ 1.63	2295/ 1.28	2676/ 1.30	2005.8/ 2.18	0.546
Iran	1010/ 2.33	1435/ 3.00	1152/ 1.81	1191/ 1.62	1685/ 1.87	2001/ 1.63	3104/ 2.23	2353/ 1.65	1993/ 1.11	4341/ 2.12	2026.5/ 1.93	17.485
Asia	6033/ 13.96	5365/ 11.22	6668/ 10.52	8875/ 12.14	13092/ 14.55	17723/ 14.44	18004/ 12.95	21077/ 13.67	29391/ 16.48	35881/ 17.53	16210.9/ 13.74	21.909
Total including other	43198	47815	63375	73101	89971	122678	138920	154176	178332	204583	111614.9	18.862

Source: Various issues of Economic Survey published by government of India

Note: AT –Absolute Term

SP –Percentage share in total Export.

USA and UK have been emerging as the largest exporting and importing countries. India's total exports to major trading countries increased considerably and this rise have been due to higher in volume as well as unit value realization.

The USA is the major country for Indian export. In the year 1990-91 India's export to USA in absolute term was Rs. 47.97 crores increased to Rs15784 crores in the year 1994-95 and further increased to Rs36980 crores in 1999-00. The India's export to USA has increased almost seven times during 1990s. The drastic increase in growth rate over the previous year, i.e. 62.64 percent in 1991-92. The growth rate had been increased from 1991-92 to 1994-95 at an increasing rate but it falls from 1995-96. In the year 1997-98, the growth rate from the previous year was recorded lowest i.e. 8.64 percent. The overall development of India's export is concerned, the USA hold upper hand due to the USA mainly imports agricultural product and India is agriculture based country and its about 75 percent of export is directly or indirectly linked with agriculture, another reason for India's export to USA increased in last decade because India adopted new economic policy in 1991 and liberalized their trade policy. The share of USA in India's total export had increased from 14.73 percent in 1990-91 to 22.69 percent in 1999-2000.

After USA, UK is the second largest country for Indian export. In the year 1990-91 India's export to UK was accounted Rs2128 crores increased to Rs5305crores in 1994-

95 and further increased to Rs. 9335 crores in 1999-2000. The annual export growth rate of India to UK was 18.31 percent during the 1990s. The growth rate of India's export to UK in respect of preceding year was highest in 1991-92, recorded 31.86 percent. The export growth rate over the previous year decline sharply from 1996-97 to 1998-99 even in 1998-99 there was negative growth rate recorded i.e. -1.88 percent. The share of India's export to UK was 6.5 percent in the year 1990-91 reduced to 5.7 percent in the year 1999-2000. Still, UK occupied second position in Indian export in absolute terms.

Japan is another major trading partner of India. In 1990-91, India's export to Japan amounted Rs3039 crores and it rose to Rs7379 crores in 1999-2000. There was 14.2 percent of growth registered during the same period. India's export to Japan has increased significantly up to 1995-96 but from 1996-97 to 1998-99, the growth rate over the previous year because negative. The reason for this set back was sanction on India due to Pokran II test. As far as the share of Japan in India's total export is concerned, it decreased from 9.33 percent in the year 1990-91 to 5.73 percent in the year 1999-2000.

India's total export to Russia has declined remarkably i.e. from Rs5255 crores in 1990-91 to Rs4123 crores in 1999-2000, showing an overall decline of 21.54 percent. The collapse of the Russian market has major set back to India's exports efforts. Except two years 1994-95 and 1999-2000, accounted negative growth rate in respect of pervious year in

the whole decade of 1990s. The share of Russia in India's total export was 16.14 percent in the year 1990-91 and it was come down to 2.53 percent in the year 1999-2000. This drastic decrease in figure was big jolt in India's export performance in the 1990s.

Belgium, is the another major trading partner of India. In 1990-91, India's total export to Belgium was Rs1259 crores has increased significantly and reached to Rs5984 crores in the year 1999-2000. It has increased almost four times during the same period. However the mixed trends of annual growth rate observed during the year 1990-91 to 1999-2000. In the years 1993-94 and 1996-97 showed the highest and lowest growth rate in respect of previous year accounted 30.00 and 3.49 percent respectively.

Germany is an important country for the Indian export and occupied fourth rank followed by USA, UK and Japan. In the year 1990-91 the total India's export to Germany of Rs2549 crores and it rose to amount of Rs7809 crores in the year 1999-2000, accounted all over growth 206.35 percent during the same period. Till, 1995-96 annual growth rate was considerable increased but it was decline badly from 1996-97 to 1999-2000, even in the year 1999-2000, the growth rate from the last year was observed only 0.21 percent.

Africa has emerging an important trading partner. In the year 1990-91 India's total export to African countries was only Rs688 crores and it increased significantly to Rs4951 crores in 1999-2000. The overall growth during 1990-91 to 1999-2000 was 619.6 percent and average annual

export growth rate recorded 26.09 percent during the same period. African countries accounted for a significant portion of India's total export. Its share in India's export was 2.11 percent in 1990-91 which rose to 3.03 percent in 1999-2000.

Asian countries accounted for a major portion of India's exports. These countries accounts for more than one fifth of India's export. In fact exports of Asian countries accounted for 20.36 percent of India's total export in 1999-2000 which was 14.33 percent in the year 1990-91. This shows a significant change in the India's export to Asian countries. Actually, exports to these countries grew more than seven fold form 1990-91 to 1999-2000 in absolute term and average annual growth rate was observed 26.38 percent during the same period.

Thus as far as the share of different countries in India's exports is concerned, Russia occupied the first position in 1990-91 with a share of 16.14 percent followed by USA with a share of 14.7 percent. Japan occupied the third position with a share of 9.33 percent. However, as far as Asian countries as a whole is concerned, they had 14.33 percent in the total exports which would keep them at third position. The position changed markedly thereafter due to disintegration of USSR. As in clear from the table Russia accounted for only 2.53 percent of India's export earnings in 1999-2000. USA occupied the first position in 1999-2000 with a share of 22.69 percent followed by UK with a share of 5.72 percent. Belgium held the third place in the same year sharing d5.67 percent of India's 5.67 percent of India's total

exports. India's total exports were increased from Rs.32553 crores in 1990-91 to Rs.162925 crores in 1999-2000. This is estimated to grow by 19.98 percent between the same periods.

As can be seen in the table 2.4, the share of USA in India's import was highest in the year of 1990-91. Its share was 12.14 percent in the India's total imports in 1990-91. In 1999-2000 too, the USA occupied the first position in India's total imports. However, its share has declined from 12.14 percent in 1990-91 to 7.68 percent in 1999-2000. In absolute term, India's imports from USA was to the tune of Rs5245 crores in 1990-91, which recorded a negative growth in the year 1991-92 and import fell to Rs4919 crores. In 1999-2000, it rose to Rs15728 crores and recorded an annual average growth of 14.85 percent during the period 1990-91 to 1999-2000.

After USA, Germany occupied the second place in India's total imports, with a share of 8.03 percent in 1990-91. Its share has gone down significantly to 3.95 percent in 1999-2000. India imported worth of Rs3473 crores from Germany in 1990-91. This increased to Rs. 8089 crores in 1999-2000 in absolute term. In this way, import from Germany recorded an annual average growth of 11.41 percent from 1990-91 to 1999-2000. In other words, imports increased by 132.91 percent between the mentioned periods.

Japan occupied the third place in India's total imports in 1990-91 with a share of 7.51 percent. The share went down to 4.98 percent in 1999-2000. However, imports from

Japan grew in absolute term. India's import from Japan was Rs3245 crores in 1990-91 which has increased to Rs10208 crores in 1999-2000 and recorded annual average growth of 14.82 percent.

India's import from Saudi Arabia was worth of Rs2899 crores in 1990-91, which rose to Rs9849 crores in the year 1999-2000. Imports from Saudi Arabia recorded an annual average growth of 16.21 percent. In other way, we may say that imports grew by 239.73 percent in the mentioned period. However, the share of Saudi Arabia in India's total imports has declined from 6.71 percent in 1990-91 to 4.81 percent in 1999-2000. But in absolute term imports from UK has increased to Rs11828 crores in 1999-2000 from Rs2894 crores in the year 1990-91, recorded an annual average growth of 17.5 percent. That is increased by 308.7 percent between the years 1990-91 to 1999-2000.

India imported worth of Rs2718 crores from Belgium in the year 1990-91 which rose to Rs15058 in 1999-2000. So, imports from Belgium achieved an annual average growth of 24.07 percent. The share of Belgium in India's total imports was 6.29 percent in 1990-91 which rose to 7.36 percent in 1999-2000. This shows a growth trend of imports from Belgium both in absolute and percentage term.

Russia occupied seventh position in India's total imports in 1990-91, with a share of 5.89 percent. Its share has declined drastically, to 1.3 percent in 1999-2000. India's imports from Russia was worth of Rs2548 crores in 1990-91

which rose marginally to Rs2676 crores in 1999-2000 with an annual average growth rate of 11.64 percent.

India's import from Australia was worth of Rs1464 crores in 1990-91, which grew to Rs4677 crores in 1999-2000 recording an annual average growth rate of 16.84 percent. Its share in India's total imports was 3.38 percent in 1990-91. It fell down to 2.28 percent in the year 1999-2000.

Iran's share which is our focus of study in India's total imports was 2.35 percent in 1990-91 which fell down marginally to 2.12 percent in 1999-2000. More than 90 percent of India's import from Iran has petroleum products. So that, the fluctuation of prizes of petroleum product in international market would effect the values of trades between them. Iran is an important country for India's import because India has very much depended on Iran for domestic requirement of petroleum product. India imported amount of Rs.1018crores from Iran in 1990-91 this figure was increased significantly to Rs.4341 crores in 1999-2000, showing 326.42 percent rise during the same period.

India's import from France was worth of Rs.1304crores in the year 1990-91 which increased to Rs.3022 crores in 1999-2000 at an annual average growth rate of 11.16 percent. This increase in import is 144.93 percent of import in 1990-91 from France. France's share in India's total import was 3.01 percent in 1990-91, which slipped down to 1.56 percent in the year 1999-2000.

The share of Asian countries in India's import was in 0.96 percent in the year 1990-91 which has significantly

increased to 17.53 percent of total Indian import in 1999-2000. In absolute term India imported worth of Rs.6033 crores from Asian countries in 1990-91 which has increased drastically to Rs.35881 crores in 1999-2000. This shows a 494.74 percent rise in import from Asian countries over the given period. However, the annual average growth in same period is estimated to be 23.28 percent.

Iran's share in the total Indian imports from Asian countries was 16.87 percent in 1990-91 which fell down to 12.09 percent in 1999-2000. India's total imports was worth Rs43198 crores in 1990-91 which has grown to Rs204583 crores in the year 1999-2000. Which has shows a 375.59 percent rise in imports in the given period. Moreover, the annual average import growth was 19.17 percent.

As far as, the share of different countries in India's imports is concerned, in 1990-91, USA occupied the first place with a share of 12.14 percent. Germany had the second position with a share of 8.03 percent followed by Japan with 7.51 percent share. Saudi Arabia and UK occupied fourth and fifth place with a share of 6.71 percent of 6.69 percent respectively.

In 1999-2000, USA again occupied first position with a share of 7.68 percent followed by Belgium with 7.36 percent share. UK had the third place (share 5.78 percent) Japan (share 4.98 percent) and Saudi Arabia (share 4.81 percent) in that order. Asian countries had a share of 13.96 percent in 1990-91, out of which Iran's share was 16.87 percent. The share of Asian countries in India's total imports increased

significantly in 1999-2000. Its share was 17.53 percents in that year. However, Iran's share in India's total imports from Asian countries fell down to 12.09 percent in 1999-2000.

India's Level of Agricultural Development: -

Agriculture has got a prime role in Indian economy, provides livelihood to about 64 percent of the labour force, contributes nearly 26 percent of Gross Domestic Product and accounts for about 18 percent share of the total value of the country's export. It supplies bulk of wage goods require by the non-agricultural sector and raw materials for a large section of industry. Land utilization statistics are available for 92.7 percent of total geographical area of 3287.3 lakh hectares. According to land use statistics available from states, area under forests had increased from 404.8 lakh hectares in 1950-51 to 687.5 lakh hectares in 1996-97. Net sown area increased from 11875 lakh to 1428.2 lakh hectares during the same period. Broad cropping pattern indicates that though food grains have preponderance in gross cropped area as compared to non-food grains, their relative share came down from 76.7 percent during 1950-51 to 66 percent during 1996-97. Per capita net availability of food grains went up to level of 467 grams per day in 1999-2000 as compared to that of 395 grams in the early fifties. In terms of gross fertilizer consumption, India ranks fourth in the world after USA, the erstwhile USSR and China.

Agriculture and Trade Sector: -

Agriculture contributes a sizeable part to exports and is an important segment of imports of the country. The exports

of agricultural products have been quite large and rising all through these years, particularly since the seventies. These exports at present constitute nearly 20 percent of the total exports of the country. Besides the exports of products from activities allied to agriculture constitute a significant proportion of the total exports. If to this we add the exports of the products based on agriculture. The contributor to the national kitty of foreign currencies, not only it earns a sizeable amount of foreign exchange its earnings are of special significance for the country's development. It is because almost entire earnings are available for the import of non-agricultural development goods, as agriculture itself needs little imports as its inputs. Imports of agricultural products are no less important in the country's foreign trade. Their total value has often fluctuated. Nevertheless these have been considerable these form around 25 percent of country's total import. Among imports items, the important ones are textile fibers, fertilizers, animal and vegetable oils and fats agricultural machinery and implements etc. These imports for the agricultural sector involve a large expenditure of foreign exchange. Thus both from the angle of exports and imports, agriculture occupy an important place in the life and economy of the country.¹

India also became a signatory to the Uruguay Round Trade negotiations, including agriculture. Consequently, the tax Reform Committee (Government of India, 1993) had

¹ Tiwari, Satish. *Agricultural Development*, Anmol Publication, New Delhi, PP. 125-127

recommended that agriculture commodities should basically attract three rates of import duties, first, essential agricultural commodities like wheat and rice should be imported at zero percent duty, secondary commodities like oilseeds and pulses should attract 10 percent duty and thirdly, non-essential agricultural goods like almond and cashew nuts should be imported at 50 percent import duty. All these transformation in import duties should be achieved by 1996–97 or latest by 1997–98.¹ Under the WTO agreement, India has begun the process of phased dismantling of Quantities Restrictions (QRs) since the later half of 1990s. As per the phase out plan with respect to balance of payment related to QRs on imports (1429 items announced on March 21st 2000) QRs on 714 items were removed on March 31st 2000 and QRs on the remaining 715 items were removed on March 31st 2001. These included 147 items of agricultural products.²

With a new economic policy of 1991, both internal and external trade policies were liberalized various policy reforms viz., withdrawal of quantitative restrictions tariff rate, quotas export subsidies etc. were introduced to create competitive environment for Indian agriculture. As a result of liberalization policy import of agricultural products especially in the case of edible oil, cereals increased from

¹ Rudrappan, Dr. D., “Globalisation and its implications for Indian Agriculture”, Jugale, V. D., (ed.), *Globalization growth and poverty*, Serial Publication, New Delhi, 2004, PP. 322

² Prema, Prof. Sathya, “Impact of Globalization on Export, Import of Agro Products”, Jugale, V. D., (ed.), *Globalization Growth and Poverty*, Serial Publication, New Delhi, 2004, PP. 283

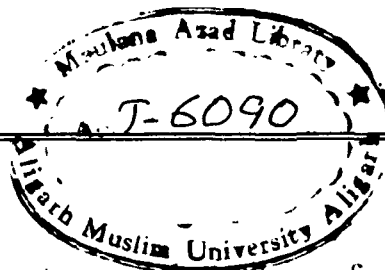
Rs. 1240crores in 1992–93 to Rs. 1383crores in 1998–99. Similarly India's export of agricultural and allied products increased from 13.02 thousand crores in 1993–94 to 23.69 thousand crores in 1997–98. The trend with regard to India's export of Agro-products is that export of spices tea, coffee, tobacco, cashew nut, fruits and vegetables increased considerably. Therefore, there is more scope for boosting export of commercial crops—tea, coffee, fruits, herbs, tobacco, spices, vegetables, have comparative advantage.¹

Agriculture and Capital Formation: -

Any decline in investment in agriculture has to be viewed with concern. This is particularly so because of growth of infrastructural facilities determine the growth of a particular sector. Less capital formation in agriculture would mean less growth of infrastructural facilities like irrigation, rural roads, market, power, cold storage etc. This would affect agricultural growth adversely. Gross capital formation (GCF) in agriculture as percent of total gross capital formation in the economy after rising in the 1970s decline during the 1980s and 1990s. In 1999–2000, it was just 5.2 percent as against 16.3 percent in 1980–81. Further, GCF(Gross Capital Formulation) in agriculture as percent of GDP in agriculture also declining during the last two decades from 10.9 percent in 1980–81 to only 5.2 percent in 2000–2001.² The public investment in real terms at 1980–81 prices was Rs. 1796crores in 1980–81 that fell to Rs. 1268crore in

¹ *Ibid.*, PP. 280–282

² *Hand book of Statistics On Indian Economy 2001*, Reserve Bank of India Publication, Mumbai, December 2001, P. 21



1995–96. In percentage terms, the share of public investment in total investment in agriculture fell from 38.7 percent in 1980–81 to only 18.2 percent in 1995–96. The central statistic organization has recently shifted the base period from–81 to 1993–94. In terms of this new series, public investment in agriculture was Rs. 4668crore in 1996–97 that fell to Rs. 3867crores in 1998–99 and stood at Rs. 4007crores in 2000–01. In percentage terms, the share of public investment in total investment was only 24.2 percent in 2000–01, (i.e. less than one fourth).¹

The most important cause for the decline in public investment in agriculture is the diversion of resources from investment to current expenditure. A large portion of public expenditure on agriculture in recent years went into current expenditure in the form of increased subsidies for food and agricultural inputs, particularly fertilizers, power and irrigation, food subsidy increased from Rs. 662crores in 1980–81 to Rs. 7500crores in 1997–98 and further to Rs. 12010crores in 2000–01. As far as agricultural inputs are concerned, the subsidies on fertilizers, power and canal irrigation have increased from a meager fraction of 0.62 percent of GDP (1.8 percent of agricultural GDP) in 1980–81 to 2.19 percent of GDP (or 8.2 percent of agricultural GDP) in 1999–2000. One per hectare basis of gross cropped area, the subsidy has gone up in Indian agriculture by more than 10 times in real terms. Over this two-decade period of three subsidies, power subsidy comprised about 65 percent,

¹ *Economic Survey*, Government of India, 2001–02, New Delhi, P. 202 (table 824)

fertilizer subsidy 21 percent and canal irrigation subsidy 14 percent at the end of 1999–2000.¹

Agricultural Policy and Achievement: -

After the launching of first and second five year plans, the Government realized that India also can make strides towards higher levels of economic growth only by achieving rapid development of agricultural sector and this is mainly dependent on sizeable increase in farm productivity. However, as a result of launching the second plan, production of food grains did not increase as per target. It was said that this was a result of adverse weather conditions. In addition to this, there were several factors which also affected food grains productions such as limited resources, unconformity of plan, lack of organization to increase productivity in each part of the country, non –availability of inputs, lack of Government concerted actions, under utilization of existing irrigation facilities, under development electrification facilities, lack of land use planning, inadequate implementation of land reforms, limited investment in industries producing for agricultural sector, the rigid administration, traditional farming methods insufficient irrigation facilities and non–availability of institutional finance to agricultural, on account of such factors, agricultural production did not keep pace with rising demand for agricultural production. In this situation, it was necessary to increase agricultural production. To solve this problem

¹ Gulati, Ashok, and Narayanan, Sudha, “Subsidies Rise Investment Falls”, *The Economic Times*, New Delhi, February 1st, 2001, P. 12

agricultural production team was invited by the Government of India in 1959. The team recommended several policies and one of the important suggestions was that to increase agricultural production, technological improvement was necessary. On the basis of these recommendations, a ten point's programme was introduced in 1961. The objective of this programme was to increase level of agricultural production through change in technology, finance and administrative structure. In the beginning this programme was introduced in seven states only. Among these seven states, four were rice growing states (Andhra Pradesh, Tamil Nadu and Bihar) two were wheat-producing states (Uttar Pradesh and Punjab) and one was millet-growing States (Rajasthan).

With experience of this programme, and increasing demand for food and agricultural production led the Government to decide to set another programme entitled "intensive Agricultural Area Programme" (IAAP) and that should cover about 25 percent of total cultivated land of the country. IAAP was introduced in 1964-65 for intensive development of crops like wheat, paddy, millets, cotton, sugarcane, pulses etc. This programme was initially launched in 114 districts of various states and 1084 block selected. The same was introduced in 597 blocks in 1965-66 and 910 blocks in 1966-67. One of the limiting factors of this

programme was the very limited supply of necessary inputs in agricultural sector.¹

As a result of new agricultural strategy, food grains output increased substantially from 81.0 million tones in the third plan on annual average to 118.1 million tones in the fifth plan on annual average, 115 million tones in the seventh plan on annual average. Production of food grains touched the record level of 209.8 million tones in 1999–2000.

Green Revolution was restricted to only five crops i.e. wheat, rice, jawar, bajra and Maize. The production of rice, which had increased slowly in the early period of the green revolution, has started picking up at late. On average annual production of rice rose from 35.1 million tones in the third plan to 54.5 million tones in the sixth plan, 65.1 million tones in the seventh plan and further to 78.7 million tones in the eighth plan. It increased further to 84.9 million tones in 2000–01. As far as the production of wheat is concerned, it seems to have made rapid strides with its production increasing on average annual basis from 11.1 million tones in the third plan to 29.8 million tones in the fifth plan, 48.3 million tones in the seventh plan and further to 62.9 million tones in the eighth plan. The production of wheat touched the record level of 76.4 million tones in 1999–2000. The overall contribution of wheat in total food grains has increased from 13 percent in 1950–51 to 35 percent in 2000–01. The production of coarse cereals jawar, bajra and Maize

¹ B.H. Joshi, *Problems of Indian Agriculture*, B.R. Publishing, New Delhi, 1985, PP. 279–280

continues to remain static or was moved very slowly upwards. The production of these crops wide yearly fluctuated. For instance, the production of jawar on average annual basis was 10.8 million tones in the fifth plan and 11.3 million tones in the eight plans. However, in 2000–01 the production of jawar fell steeply to 7.7 million tones. The production of bajra rose from 5.2, million tones on average annual in the seventh plan to 7.2 million tones in 1994–95, but fell to 5.4 million tones in 1995–96. In 2000–01, the production of bajra stood at 7.1 million tones. As far as pulses are concerned their production is more or less static. For instance, it was recorded on annual average basis 11.7 million tones in second plan, 12.5 million tones in seventh plan and 13.3 million tones in the eight plans. Its production was 13.4 million tones in 1999–2000 but fell to 10.7 million tones in 2000–01.¹ The food grains yield has continued to increase from 719 kg in 1960s to 894 kgs in 1970s and 1156 kgs in 1980s and further to 1490 kgs during 1991 –92 to 1997 –98. The increase in yield has been more pronounced in the case of wheat from 950 kgs in 1960s to about 2450 kgs in 1990s. Obviously, during the last four decades, the increase in yield per hectare in wheat was of the order of 158 percent as against rice of the order of 82.7 percent.²

As far as oil seeds is concerned, the bulk of the vegetable oil production in India is derived from nine

¹*Agricultural Statistics at Glance 2001*, Ministry of Agriculture, Government of India . New Delhi. Table 162

² Harish Domoelaran, "Green Revolution Figure", *Business line*, May, 27 &28, 1998. P. 17

cultivated oil seeds, namely, groundnut, mustard, sesamum, sunflower, Niger seed, soybean, sunflower forming the edible group and linseed and castor seed forming the edible group. The total production of oilseeds increased on average annual basis from 8.3 million tones in the sixth plan. To achieve self-sufficiency in edible oils, the Government launched a series of measures towards the end of the sixth plan and seventh plan. This included National Oil Seeds Development Project started in 1985–86, Technology Mission on oilseeds started in May 1986 and oil seeds production thrust project launched in 1987–88 to accelerate the production of four major oilseeds, namely groundnut, mustard, soybeans and sunflower. In 1989–90, the Government announced its price band policy of fixing wholesale price band for oil. This policy sought to fix the procurement prices of groundnut and nape seed at least 40 percent above the levels recommend by the commission from agricultural costs and prices. As a result of these policies area under oilseeds expanded considerably leading to a substantially increase in oilseed production from 12.7 million tones in 1987–88 to 18 million tones in 1988–89. In fact, on the basis of average annual production of oilseeds rose from 11.4 million tones in the sixth plan to 13.9 million tones in the seventh plan and further to 21.9 million tones in the eight plans.¹ During 1998–99 another record production of 25.2 million tones of oilseeds was achieved over 21.3 million tones in 1997–98.

¹ Gulati, Ashok and Ralley, Tim, *Trade Liberalization and India Agriculture*, Sagar Publication, New Delhi, 1999, P .1

However, there was a set back in the production of oilseeds during 1999–2000 due to unfavorable weather conditions prevailing in the country. The implementation of centrally-sponsored oil seeds production programme is being continued during the ninth five year plan also with enhanced assistance.¹ Revolution in oilseeds occurred in the less irrigated areas of land and erratic rainfall, a region referred to as the semi-arid tropics (SAT) of India. SAT India comprises 175 districts of India, accounts for the more than three fifth of the all India gross cropped area and contributes more than half of the value of the main crops of India.²

India's level of industrial development: -

India inherited a weak industrial base, under developed infrastructural facilities and a stagnant economy at the time of independence. The Government called an industrial conference in December 1947 to consider ways and means to utilize the existing capacity more fully and to harness industry to the growing requirement of the people. In 1948, Government introduced the industrial policy resolution. This outlined the approach to industrial growth and development. It emphasized the importance of the economy of securing a continuous increase in production ensuring its equitable distribution. In December 1954, the Indian Parliament accepted the socialistic pattern of society as the central objective of social and economic policy. In order to realize

¹ *India – A Reference 2001*, Government of India, , P. 382

² Gulati, Ashok and Ralley, Tim, *Op. Cit.*, P. 14

that objective, the industrial policy resolution dated April 30, 1956 considered it essential to accelerate the rate of economic growth and to speed up industrialization and in particular, to develop heavy and machine making industries, to expand the public sector and to build up a large and growing cooperative sector. Besides it considered to reduce disparities in income and wealth and to prevent private monopolies and concentration of economic power. Accordingly, it was decided that the state would progressively resume a predominant and direct responsibility for setting up new industrial undertakings and for developing transport facilities.¹ The industrial policy statement of 1973 identified high priority industries where investment from large industrial houses and foreign companies would be permitted. The industrial policy of 1977 laid emphasis on decentralization and on the role of small scale ting and cottage industries. The industrial policy of 1980 focused on the need for promoting competition in the domestic market, technological up gradation and modernization.² The policy laid the foundation for an increasingly competitive export base and for encouraging foreign investment in high technology areas.

While India's performance in the industrial sector is certainly impressive since independence compared to the rate of growth of two percent per annum experienced by the

¹ Parsad, K.N., *Indian Economy since Independence*, Vol. I, National Publishing House, New Delhi, 1997. PP. 46-47

² Deka, Dr. P., *Industrial Development*, Om sons Publications, New Delhi, 1999. PP. 21-22

country in before 1950s while industrial production increased at an average rate of 7.8 percent in the decade 1955-65. The rate of growth fell to 3.7 percent in the next decade 1965-75. It is seen that the best period was from 1961 to 1965. In this period the annual average rate of growth was nearly nine percent. The sharpest increase was in the capital goods industries, where the average annual rate of growth was nearly 20 percent. The basic goods industries rose by 10.5 percent during this period and the out put of consumer goods industries rose by five percent. The sharp down turn occurred between 1966 and 1970, where the average growth rate fell to 3.7 percent. And the most noticeable decline was in the capital goods industries. Where, over the five year period, the average rate of growth turned out to be negative the rate of growth of consumer good industries at four percent per annum was only a small decline from the previous five year. During 1971-75, the growth rate of industrial production was 3.6 percent per annum. In which the basic goods industries and capital goods industries maintained a rate of growth of five percent. The rate of growth in consumer goods industries fell to 1.6 percent per annum. During 1976-1980, the average rate of growth rose to 4.8 percent. This was more or less the rate of growth experienced by all segments of industries. The major cause for deceleration in industries production had received in the form of war in 1965 and 1971, the oil crisis in 1973, and the droughts in 1965 and 1966.¹

¹ Rangaranjan.C., *Select Essays on Indian Economy*, Vol-1, Academic Foundation Publication, New Delhi 2004, PP. 85-89

Due to these shocks which prevented the economy from gaining momentum and achieving a higher rate of industrial growth.

In the 1980s several policy initiatives aimed at improving the competitiveness of Indian industry and also in bringing about greater modernization and cost efficiency. This meant adoption of several measures to facilitate capacity creation and output expansion and to remove procedural impediments. Measures to facilitate capacity creation have taken the form of delicensing a number of industries and increasing the threshold level of licensing substantially subject to certain location prescriptions. Minimum capacity levels have been prescribed for selected industries with a view to preventing fragmentation of capacity at uneconomic levels. An attempt also has been made to liberalize the import of capital goods and other intermediates so that Indian industry is not isolated completely from external competition.¹

¹ *Ibid.*, PP. 120 & 124-126



GROWTH RATE OF INDUSTRIAL PRODUCTION

First Part

Major Sector	1980-81 to 1991-92*	1992-93 to 1999-00*	2000-01
General	7.8	6.0	5.0
Mining	8.4	3.3	3.7
Manufacturing	7.6	6.3	5.3
Electricity	9.0	6.6	4.0

Second Part

Used Based Classification	1980-81 to 1991-92*	1992-93 to 1999-00*	2000-01
Basic Goods	7.4	6.1	3.9
Capital Goods	9.4	5.9	1.8
Intermediate Goods	4.5	9.1	4.7
Consumer Goods of which	6.0	6.3	8.0
(a) Consumer durable	10.8	11.2	14.5
(b) Consumer non-durable	5.3	5.1	5.8

Source:

1. Economic Survey, Government of India, 2000-01, P. 130
2. Economic Survey, Government of India, 2001-02, PP. 161 & 165

* Sample average of the annual growth rate.

In the present era, the level of industrial development has become the index of the development of the economy. It plays an important role in the economic development of the under developed economies. Keeping in view the importance of industrial sector, Government of India introduces economic reforms to remove the impediments in the industrial sector. The major break through provided by the new economic policies in the way of removing the obstacles of industries. To improve the efficiency and of course production of the industrial sector, the restrictive policy of industrial licensing was abolished for all industries except 18 which is latter reduced to 4 industries of strategic nature. To solve the financial problem of industrial sector and technological know how, foreign direct investment has been allowed in high priority areas up to 51 percent of foreign equity that further increased to 100 percent in some selected sectors.¹ Despite all these efforts the general index of industrial production decreased to 6.0 percent in the post reform periods from 7.8 percent in the pre-reform period. Table represents the behavior of industrial sector. The annual average growth rate of mining sector was 8.4 percent during 1980s (1980-81 to 1991-92) which controlled to 3.3 percent in 1990s (1992-93 to 1999-2000). The manufacturing sector also could not survive itself from the declining growth rate of the industrial sector and the growth rate of manufacturing

¹ Rani, Uma, "Economic Reform and Productivity Trends in Indian Manufacturing", *Economic and Political Weekly*, Vol. XXXVII, No. 41. Sameekha Trust Publication, Mumbai, October 13-19, 2001, PP. 314

sector reduced to 6.3 percent annually in the post reform process from 7.6 percent in the pre-reform period. The electricity generation also slumped to 6.6 percent in the decade of economic reforms from 9 percent during 1980s. And hence, the dream for accelerated growth of the industrial sector remained a dream.

The second part of the table provides information about the growth rate of industrial sector, classified on the basis of use. As the data reveal the annual average growth rate of the production of basis goods was 7.4 percent in the pre-reform period. But in the post reform period this sector grew by only 6.1 percent. The data available from Economic Survey of India indicates that both the intermediate goods and consumer durables have a slightly higher growth rate (9.1 percent and 11.2 percent respectively) in the post reform period in comparison to 4.9 percent and 10.8 percent in the pre-reform period respectively. Except these two sectors all other sectors have a higher growth rate in the pre-reform period. The growth rate of capital goods dropped to a very low level of 5.9 percent during 1992-93 to 1999-2000, which was 9.4 percent for the period of 1980-81 to 1991-92. The RBI registered its dissatisfaction with the performance of industrial sector during the post-reform period in these words, "In the nineties, the overall industrial growth, based on the index of industrial production (IIP) recorded a much wider variation (ranging between 0.6 percent to 12.7 percent) as compared with relatively low order of variation (ranging between 3.2 percent to 9.3 percent) observed in the eighties."

After a recovery in 1999-2000, the industrial growth once again slowed down in 2000-01. The over all industrial growth during 2000-01 is 5.0 percent, which is lower than the growth rate of proceeding year.

The high cost of production and infrastructural bottlenecks like inadequate and unreliable supply of services in transport communication and power sector have seriously discouraged the industrial production. The low level of production and inability to reap the economies of scale, the use of out dated techniques of production and restricted labour laws have reduced the industrial productivity of Indian industries. The process of globalization has increased the competition in the market. But due to absence of proper infrastructural facilities we could not take this advantage. The adjustment process of industry due to mergers and acquisitions has also taken a larger time than expected. A relatively higher interest rate has badly affected the industrial sector in the post-reform period. Besides theses structural factors, the cyclical factors have also adversely affected the growth rate of industrial sector. The demand of some cyclical industries like cement, automobiles and steel has affected by the business cycle. The policies of economic reforms (especially privatization) have encouraged the concentration of wealth in a few hands due to which the demand for consumer goods did not grew at desired rate. And the inventions of e-business and e-commerce have reduced the inventory levels for better management of supply and demand, by industries. Summing up the slow downs in

domestic and global demand have affected industrial growth adversely in the current years. There has been widespread and significant declaration of industrial growth in all the major sectors and end use specific groups. The industrial slowdown is also reflected in the considerable decline in sanctions and disbursement made by financial institutions and in the performance of core and infrastructure industries.¹

India's Major Industry: -

Cement Industry:

Cement is one of the most advanced industries in the country. After the complete decontrol of price and distribution in March 1989 and introduction of other policy reforms, cement industry has made rapid strides both in capacity production and process technology. As on 30th April 2001, there were 119 large cement plants with an installed capacity of 122.41 million tones per annum. Besides, there are more than 300 mini cement plants with an estimated capacity of 9 million tones per annum. The production during 2000-01 was 99.52 million tones. There was a negative growth rate of 0.93 percent in 2000-01 due to sluggish demand. Over two lakh persons are employed in the industry. India is the seventh largest cement producer in the world, the first six being Russia, Japan, USA, Italy West Germany and France. The cement industry has kept pace with technological advancement and modernization. Export of cement was 5.15 million tones in 2000-01. Main markets of

¹ Patil, Dr. A. P. Biradar, "Globalization of Indian Economy Agenda for the Future". By Jagale, V.B., (ed.), *Globalization, Growth and Poverty*, Serial Publication, New Delhi, 2004, PP. 177-179

Indian cement are Bangladesh, Indonesia, Malaysia, Nepal, Middle East countries, Burma, Africa, and South-East Asian Countries.¹

Rubber Goods Industry:

Rubber goods manufacturing industry is a delicensed industry. The major rubber goods produced by the industry are tyres and tubes of all kinds, surgical gloves, prophylactics conveyers and v-belts, hosepipes, sports goods etc. Many of the rubber goods like cycle tyres and tubes, canvas hoses rubber washers etc are reserved for exclusive manufacture in the small scale sector. At present the industry has 32 tyres units, 220 medium scale units, over 5,500 small scale units and an annual turn of over Rs. 12,000 crores. It directly employs about 3.5 lakh people. The total export of rubber goods has increased from Rs. 313 crores in 1991-92 to approximately Rs. 1,409 crores in 1999-2000. Tyres and tubes constitute the most important segment having a turn over of around Rs. 10,000 crore the export of tyres reached a level of Rs. 553 crore during 1999-2000.²

Sugar Industry: -

India is the fourth major sugar producing country in the world. The first three being Russia, Brazil and Cuba, sugar industry, occupies an important place among organized industries in India. It ranks third largest industry in terms of its contribution to the net value added by manufactured and employs nearly 3.25 lakh workers besides creating extensive

¹ *Survey of Indian Industry*, The Hindu Publication, Chennai, 2001, PP. 256-257,

² Deka, Phani, *Op. cit.*, PP. 444

indirect employment for 25 million cultivators of sugarcane, the various agencies of distributive trade and through subsidiary industries such as confectionary. It is also an important source of excise duty for the central Government. There are now 420 sugar factories in India with a total capacity of 15 million tons. Against this, 400 factories were in operation, of which 120 were in the private sector, 60 in public sector and 220 in the cooperative sector.¹

During the 1950s production of sugar was a little more than one million tons. The Government provided incentives for higher production and the output progressively increased to nearly 4 million tons in 1970-71, about 12 million tons in 1990-91 and 14.8 million tons in 1995-96 and but declined to 12.7 million tons during 1997-98. The production and supply of sugar has been quite comfortable during the last two decades sugar output is around 15 to 16 million tons per year. Consumption too had been rising but at a lower rate. As a result the stocks of sugar were increased 2.2 million tons in the beginning of 1990-91 and 6.5 million tons in 1997-98. Despite huge surplus, the price of Indian sugar was much higher than international price.²

Textile Industry: -

The structure of the textile industry is extremely complex with the modern sophisticated and highly mechanized mill sector on the one hand and the hand spinning and hand weaving handloom sector on the other. In

¹ *India – A Reference 2001*, Government of India, P. 496

² Rohit, Saran, "Sugar Industry: Delicensing Disinterest Business Today", *Survey of Indian Industry*, The Hindu Publication, Chennai, September 22nd, 1988, P. 28

between falls the decentralized small scale power loom sector. If we include all the three sector, the cotton and synthetic textile industry in India is the largest industry in the country accounting about 20 percent of the industrial output, providing employment to over 20 million persons and contributing around 33 percent of the total export earnings.¹

Cotton: -

Cotton account more than 75 percent of the total fiber consumption in spinning mill and more than 58 percent of the total fiber consumption in the textile sector. The production of cotton rose from 30 lakh bales in 1950-51 increased to 146 lakh bales in 2000-01. During 2000-01 the area under cultivation is estimated as 81.22 lakh hectares as against 58.91 lakh hectares in 1950-51. The average yield per hectare also rose from 88 Kg in 1950-51 to 301 Kg in 2000-01.

Jute Industry: -

The jute industry was started in 1885. Its importance to the economy lies in its capacity to earn foreign exchange. The total number of loom installed in 69 units was about 44900 and the industry accounts for 30 percent of the world output of jute. India ranks number one in raw jute and jute goods production and number two in export of jute goods in the world. Jute export have shown an increase of 5.4 percent in US \$ terms. Besides providing direct employment to about 2.5 lakh persons, nearly 40 lakh families depends, their living from jute cultivation. Ever since independence, efforts

¹ *Survey of Indian Industry*, The Hindu Publication, Chennai, 1996, P. 368

have been made to improve the yield per hectares of raw jute. With the use of better quality seeds and manures the yield per hectare had risen from about 1,040 Kgs per hectares in 1950-51 to 1,995 Kgs in 1999-2000.¹

Iron and Steel: -

An attempt to manufacture iron and steel by modern methods was made in the country at Barakar in 1875 for the production of pig iron. However the first effort at large scale production was made when Tata Iron and Steel Company (TISCO) was set up in Jamshedpur in 1907. After independence, special attention was paid to the development of the iron and steel industry. Under the second plan top priority had gave to the development of the iron and steel industry. The production of finished steel rose from 1.04 million tones in 1950-51 to 6.82 million tones in 1980-81 and 29.3 million tones in 2000-01. The production of pig iron in 2000-01 was 3.4 million tones. The consumption of finished steel in 1999-2000 was 25.01 million tones which raised to 26.53 million tones in 2000-01 an increase of 6.0 percent. The total volume of iron and steel exported in 1999-2000 was 3.3 million tones which fell to 3.1 million tones in 2000-01.²

India's Economic Foreign Trade Policy:

Each and every nation of the world has designed its foreign policies for their security, stability and prosperity. Foreign economic policy of any country has a crucial role in

¹ *India –A Reference 2001*, Government of India, New Delhi, P. 513

² *India–A Reference 2002*, Government of India, , New Delhi, 2002, P. 515

the formation of economic policy and it has always been considered as a “Engine of growth” in which it monitors and develops its economic relations with the rest of the world to meet its national requirements on the one hand and to respond to economic development in the world in accordance with the country’s overall economic and other objective on the other.

The economic condition of India was still worse at the time of independence in 1947. The economy was far more underdeveloped and the per capita income was much low. The industrial structure was also weak and lopsided. So that India formulated her foreign economic policy in the light of her bottleneck of infrastructure.

In 1950s and early sixties India’s share in the world trade was very small since India being an exporter of primary goods and textiles which had a limited world market for its export and on the other hand India did not possess the potential to produce adequate quantity of engineering goods and machinery.¹ From 1963–64 some significant changes were made in the foreign economic policy of India and bold steps were taken to promote the export of the country. Some joint ventures were also started since 1965. From 1964, India’s 50 percent exports got their way in Asian and African countries, and it went up to 1970.²

¹ Chisti, Sumitra, “India’s Foreign Economic Policy”, Bimal Prasad (ed.), *India’s Foreign Policy Continuity and Changes*, Vikas Publication, New Delhi, 1969, P. 32

² Jha, Ajay N., *India’s Economic Diplomacy in Gulf*, ABC Publication, New Delhi, 1988, P. 8

A new trend in India's foreign trade policy started after 1970 due to crisis of 1973. Along with other countries India was also adversely affected by the oil price rise and the Balance of Payments position deteriorated sharply. But the years immediately after the oil price hike saw a reversal of the historical trend of a decline in India's share of world exports. During these years, India could increase her share of world exports to most of the regions except Eastern Europe. This increase, together with the borrowing from the oil facilities of IMF and a higher level of soft loans from IDA and subsequent higher remittances enabled India to manage the external accounts as well as internal economic situation in terms of growth and inflation. But the increased share in world exports did not last, and coupled with the second oil price rise in 1979-80, India's balance of payments once again deteriorated. The situation this time was managed mainly by a reduced burden of petroleum imports, as previous investments in this area had paid off and the domestic production of oil increased considerably. Also, remittances increased and India borrowed from the extended fund facility of IMF and undertook some commercial borrowing. Though the immediate problem was tackled, the situation remained delicately balanced.¹

One of the main causes of concern about the balance of payments is the lack of dynamism in India's exports. India's share of the world exports, after the brief spurt in mid

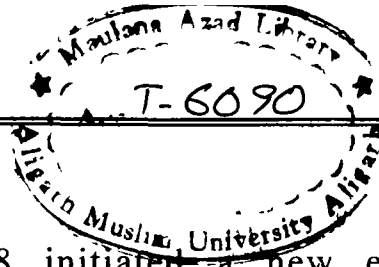
¹ Agarwal, Manmohan, "India's Trade with the Middle East" Adisesiah, Malcoms (ed.), *Role of Foreign Trade in Indian Economy*, Lancer International Publication, New Delhi, 1986, P. 110

seventies, has continued to decline. But what is perhaps more bothersome is that India is one of the few developing countries which has seen a sharp decline in her share of world exports to developing countries. This was particularly true for manufactured exports, which are becoming increasingly concentrated in Europe, whether East or West. While India's share of the total world exports and world's manufactured exports declined from 0.45 percent to 0.39 percent and 0.48 percent to 0.41 percent respectively between 1973 and 1980, her share in total world exports to the LDC's declined from 0.66 percent to 0.44 percent and of world exports of manufacturers to the LDC's from 0.69 percent to 0.41 percent during the same period.¹

In over the period, India's value of capital goods has gone up from a paltry 1 million dollars in 1961-62 to 10 million dollars in 1970-71 and 160 million dollars in 1988-89, a more than hundred fold increase in less than three decades. India's exports of capital goods to Asian and African developing countries have gone down from 85 percent in 1970-71 to less than 50 percent in 1985-86. Instead, exports to the developed countries North America and Western Europe are on rise. One would have expected India to export primary and labour intensive goods to these countries.²

¹ *Ibid.* 112

² Rath, Dilip and Sahoo, Amarendra, "India's Exports of Capital Goods: An Evaluation", *Economic and Political Weekly*, Vol. XXV, No. 34. Sameeksha Trust Publication, Mumbai, 1989, P. 1897



The year 1977-78 initiated a new era of import liberalization in the country. This process was carried forward in 1980s. The annual import policies of 1980-81 to 1984-85 followed the liberal approach of providing necessary imported inputs for the industrial sector. The export import policies of 1980s were guided by the recommendation of the three official committees, The Alexander Committee (1978), Tandon Committee (1982) and the Hussain Committee (1985). These committees had laid stress on export promotion and import liberalization. Accordingly the major changes in export import policies in the eighties were a general move towards liberalization of imports, especially of capital goods and raw materials and the emphasis on export incentives. Indications were clear that the open general license list of import would expand both with inclusion of new items and with transfers from the licensed list. Thus the Government mooted a general move to confine the quantitative restrictions to a narrower range of importable. Second, the policy measures sought to liberalize on a priority basis, imports of capital goods and raw material by shifting these to the OGL list and via tariff reduction.¹

The import liberalization in mid 1980s, the outbreak of hostilities in the west Asia in 1990 and the consequent increased in oil prices, caused a tremendous pressure on India's foreign reserves, the country was plunged into a deep

¹ Sen, Sunanda and Das, R. Upendra, "Import Liberalization as a Tool of Economic Policy in India since mid eighties", *Economic and Political Weekly*. Vol. XXXVI, No. 2, Sameeksha Trust Publication, Mumbai, March 21st, 1992, PP. 585-586

economic crisis. The rate of inflation shot up. Foreign exchange reserves declined to only three week worth of imports about US \$ 1 billion at the end of the financial year 1990 –91. To tide over the crisis, India entered into a stand by arrangement together with a supplementary loan with the International Monetary Fund (IMF). India compelled to follow the guideline of IMF various reform measures were undertaken to raise the growth rate in a sustained way. India adopted new economic policy in July 1991 and began its reforms of external sector by devaluating its currency by almost 19 percent. This was followed by an explicit dual exchange rate regime in March 1992, where exporters received the free market rate. Finally the exchange rate was unified in March 1993 with the public announcement that the exchange rate is left to be determined by the market forces.¹

The new philosophy of free market operation believes in liberation of imports to some extent establishment of export-oriented industries. Liberalizing the physical controls and regulations in industry, encourage the capacity of augmentation and technological up gradation, allow a flexible exchange rate and attract foreign investment in selected areas. Therefore, structural reforms were the need of the time to import dynamism and efficiency in growth process to pave the way for a higher industrial growth and overall growth. In the short period, the stabilization measures might show down the economic activity but in the

¹ Joshi, Vijay and IMD Little, "Macro Economics Stabilization in India 1991–1993 and Beyond", *Economic and Political Weekly*, Sameeksha Trust Publication, Mumbai, December 4, 1993, P. 2659

medium or long terms, it was expected that the implementation of structural reform will eliminate all economic inefficiencies, increase the level of economic activities and thus create new job opportunities. In the long run these structural reforms will also achieve convincing and desirable price stability reduces the pressure of BoPs deficit.

The trade policy of India was highly inward oriented till the economic reforms on the one hand. Under this protected trade regime, import substituting industries flourished that create inefficiency and high cost in the industrial sector. On the other hand, different export subsidies were given to exporting industries.

For providing raw materials, intermediate goods and capital goods at cheaper process at domestic producers. Government of India liberalized the policy of import licensing. To increase the efficiency of industries the Government allowed import of technology. Through the new provisions of Government policy, import entitlements linked to export earnings replaced the restricted regime of administered licensing of imports. With the new name of Exim Scrip's, these import entitlements attract a premium and can be freely traded. These Exim Scrip's play the role of medium of exchange and can be used to import any item in the limited permissible list. The goods enlisted in the non sensitive centralized list, the items included in the list of open general licensing and non-OGI capital goods which were not in the restricted list can also be imported with this new monetary instrument. The new trade policy reforms

simplified the advance licensing system through which inputs were imported to enhance the export capacity. Now such type of inputs is imported duty free. To make trade policies more simple, transparent and easy to administer and strengthen the liberalization policy, the Government of India announced the five-year (1992–97) Exim Policy. The new export–import policy produced conducive environment for free trade. Subject to only have a negative list of imports and a negative list of exports. The list of negative import and export were administered by general schemes against the case-by-case licensing. The blame of negative list on the import of capital goods is withdrawn in the name of liberalization. The import of raw materials is also liberalized and barring a few items, raw materials no longer appear in the negative list. With the view of export promotion, export promotion schemes, like EOU schemes and EPZ schemes have been liberalized and extended to agriculture, horticulture, aquaculture, poultry and animal husbandry. These units of export promotion could also export through export trading Houses and star trading Houses.¹

Tariff Policy: -

The trade regime of pre-liberalization period was not only complex with diverse licensing system but the tariff structure was also equally complex, irrational and difficult to administer. As compared to world standard the average tariff

¹ Chadha, Rajesh, “India’s Decade of Economic Transformation Impact Analysis of Unilateral and Global Changes in Trade Policy”, Rapila Raj and Kapila, Uma (ed.), *A decade of Economic Reforms in India*, Publisher Academic Foundation, New Delhi, 2002, P. 186-89

rate of India was not only high but the dispersion was also high. Under the chairmanship of Dr. Celliah, a high-powered committee on tariff policy reforms was set up by the central Government to reduce the indiscipline in the tariff structure. The basic objective of the reforms in tariff was to formulate measures for nationalization of tariff rates and reduce the tariff rates progressively to provide Indian industry an appropriate environment for the development of international competitiveness. In respect of the recommendations made by the committee, the peak tariffs level have been reduced to 110 percent in 1993–94 from 150 percent and further to 85 percent in 1994–95. The tariff rate again reduced to 65 percent in 2000 and further to 35 percent in 2001. The import duties on capital goods, project imports, pesticides, basic food stock for petrochemicals many building material etc, have been reduced. For maintaining the competitiveness in international market, the Government further proposes to reduce the average and maximum tariff rates progressively by yearly adjustment over the coming year.¹

In accordance with the rules of globalization game, India negotiated with a large number of countries and agreed to phase out quantitative restriction by 2003. The removal of quantitative restrictions on imports, except for balance of payment reasons is presently being negotiated. Under the WTO agreement India has began the process of phased dismantling of quantitative restrictions since the later half of

¹ Murhopadhyox Sukumar, "Excise and Customs Duty Reform", *Economic and Political Weekly*, Vol. XXXVII, No. 4, Sameeksha Trust Publication, Mumbai, November 26th, 2002, PP. 285–286

1990s. As per the phase out plan with respect to balance of payment related to quantitative restrictions on imports (1429 items, announced on March 21st 2000) quantitative restrictions. On 714 items were removed on March 31st 2000 and quantitative restrictions on the remaining 715 item were removed on March 31st 2001.¹

Trade policy reforms since mid 1980; have led to the proportion of trade of exports and imports in GNP going up steadily from 13.94 percent in 1984–85 to 18.2 percent in 1998–99. Indian economy therefore, is more deeply integrated with the world economy today, than it was in early 1990s as a result of high rates of growth of both exports and imports in the first half of the 1990s.

India's import was grown significantly under liberalization era. The major part of India import contributed by petroleum, oil and lubricant. The share of petroleum, oil and lubricant in total import was recorded 21.59 percent in the year 1990–91. In the year 1995–96 registered 17.25 percent and increased to 26.4 percent in the year 2000–01. The average share of POL in Indian total import accounted 33.4 percent during the period of 1994–95 to 2000–01. Non-oil, non-gold imports on customs basis, grew at a very high rate of about 20 percent per annum on an average during the 1992–93 to 1995–96. The growth rate decelerated sharply to just about 3.5 percent per annum during the next four year ended in 1999–2000. As expected the growth of non-oil, non-gold, imports tended to be moderate when the initial

¹ Prema, Prof. Sathya, *Op.Cit.*, P. 283

impact of trade liberalization got absorbed and the exchange rate providing reasonable incentive for cost effective import substitution. This allays the fears that trade liberalization would swap the domestic market with cheaper imports.¹

Indian export also did well in the 1990s. Over 1991–98 total merchandise exports grew at over 13 percent and agricultural and manufactured exports at 14.68 percent and 13.8 percent per year respectively. Most of the growth occurred after 1992, the launch of the liberalization, merchandise exports grew by 10 percent in 1993, 16 percent in 1994 and 23 percent in 1995, while there seemed to be a strong initial response to the liberalization.² The post 1991 period, India's exports of manufactures have shifted towards more value added product categories. Their gain has primarily come at the cost of labour intensive product. The share of technology and Knowledge intensive exports has increased from 18.5 percent of total export in 1991–92 to 23.7 percent of total exports in 1997–98. The share of labour intensive exports to total exports had gone down to 24.7 percent in 1997–98 from 31.85 percent in 1991–92.³

¹ *Economic Survey*, Government of India, New Delhi. 2001–02, PP.133–34

² Bhattacharya, B. and Prithwis, K. De, "Change in India's Export Composition in the Post Liberalization Era", *Foreign Trade review*, Vol. XXXV, No. 1. Indian Institute of Foreign Trade Publication, New Delhi, April-June 2000, PP. 68-70.

³ K.K.Kaushik and Paras, "Trade Liberalization and Performance in India –A Statistical Verification", *Foreign Trade Review*. Vol. XXXV, No. 1. IIFT Publication, New Delhi, April–June 2000, P. 17.

Chapter -3

ISLAMIC REPUBLIC OF IRAN

Geographical Location and Climate Condition: -

The Islamic Republic of Iran is situated in south western Asia, covering an area of 634,724 sq. miles ((1643958 sq. Km), it is bounded on the north by the Caspian Sea, Azerbaijan and Turkmenistan, on the east by Afghanistan and Pakistan, on the south by the Persian Gulf and Gulf of Oman, and on the west by Iraq and Turkey.¹

Iran occupies a high plateau lying more than 1500 ft. above sea level and rimmed on all sides by mountains whose average elevation is more than 6500 ft. The only real low lands are those of the Karun river basin along the border with Iraq, the narrow coastlands along the Persian Gulf and Gulf of Oman and the marshy coasts along the Caspian Sea, which drop at 90 ft. below sea level. In the north are the Elburz Mountains, with towering volcanic peaks that include the country's highest, Mount Demavend. The country's major mountain range, the Zagros, stretches from Iran's north western boundary with the former Soviet Union to the Makran Mountains in the south east. The largely barren plateau is characterized by vast salt deserts.

Iran suffers from occasional earthquakes, which can cause severe loss of life, damage to property and disruption of communications. The climate of Iran is one of the great extremes. Owing to its southerly position adjacent to Arabia and near the Thar Desert, the summer is extremely hot, with

¹ *The Middle East and North Africa*, 38th Edition. Europa Publications, London, 1992, P. 431

temperatures in the interior rising possibly higher than anywhere else in the world. Certainly over 55⁰c has been recorded. In winter however, the great altitude of the much of the country and its continental situation result in far lower temperature than one would expect to find for a country in such low latitude -30⁰c can be recorded in the North West zagros and -20⁰c is common in many places.¹

Precipitation is generally light. Only the narrow coastal region along the Caspian Sea receives more than 40 inches (1000mm) of rainfall per year and the interior salt desert receives less than 4 inches. More than half of Iran's surface area is wasteland, most of which is uninhabitable salt deserts. About 8 percent of the country's land area is arable and another 27 percent is suitable for grazing. Nearly 30 percent of the agricultural land area is irrigated mostly in the hilly margins between desert and the mountains.²

Language and People: -

Iran is a diverse and polyglot society. The Iranian themselves, or Persians, are the most numerous (45 percent of the total population) and widely distributed ethnic group. Nomadic Kurds and semi nomadic lurs inhabit in western mountains. Bakhtiari tribes are living in Zagros Mountains, west of Isfahan. The Armenians with a different ethnic heritage have maintained their Indo-European linguistic identity. The proportion of Turkic ethnic stock is small, approximately one fourth of the Iranians speak Turkish

¹ *Ibid.*, P. 430

² *The New Encyclopedia Britannica*, Microscope, Vol. 5, 15th Edition, Chicago, 1987, P. 335

language. The three principal Turkic ethnic groups are the Azarbaijani, Qashqai and the Turkmen Semites. Jews, Assyrians and the Arabs constitute only a small percentage of population. The vast majority of Iranians are Muslim mostly of the Shi'ah sect, Shi'i Islamic is the official state religion. The Kurds and Turkmen are Sunni Muslims. There are also small minorities of Christians, Jews and Zoroastrians.¹

Population: -

Population growth in Iran after the 1979 revolution points to deep seated and radical changes in the pace and nature of the country's demographic transition. At the census of November 1966, the population of Iran was recorded as 25,788,722. Of this total, about 9.8 million were urban residents. The November 1976 census enumerated a total population of 33,708,744 and the October 1986 census recorded 49,445,010 inhabitants, of whom 26,844,561 residents in urban areas, an increase of 70 percent since 1976. In early 1992 the statistical center of Iran reported that the population had increased by almost 40 percent since 1976, to more than 58 million. The rate of growth in urban areas was twice that recorded in rural areas. The first census conducted under the Islamic Republic in 1986, population growth climbed to 3.91 percent per annum in the intercensal period 1976-86. This contrasts sharply with the result of the latest census conducted in 1996, which indicates a drop in

¹ *Economic Intelligence Service*, Centre for Monitoring Indian Economy, Bombay, 1991, P. 5

growth rates to less than 2 percent for the subsequent intercensal period (1986-96, for the five year period 1991-96, the rate is even lower at 1.47 percent).¹ The population increased at an average annual rate of 1.6 percent in 1990-2000. In the year 2003, the recorded population was 66 million in which urban population was 42.9 million and population growth recorded 1.7 percent.²

Natural Resources: -

Traditionally an agricultural country, Iran has benefited in the twentieth century from the exploitation of its large oil and gas reserves, exports of which have been its major source of reserve since the Second World War. Under successive five year plans, oil revenues have been used to finance balanced economic development, including non-oil industrialization and the maintenance of a substantial agricultural sector. Iran's best natural resource is crude oil. According the official figures, Iran's proven oil reserves at the end of 2001 were 89,700 million barrels, representing about 9 percent of world reserves and 13.1 percent of those in the Middle East this huge amount is sufficient to maintain the 2001 level of production for 64.7 years. Iran is the world's second richest country in natural gas resources after Russia with the some 15 percent of the global total and 44 percent of the Middle East regional total, with proven

¹ Hakimian, Hassan, "Population Dynamics in Post-Revolutionary Iran", Alizadeh, Parvin, (ed.), *The Economy of Iran*. I.B. Tauris Publishers, London. 1997, PP. 184-89

² *Economic Trends Economic Research and Policy Department*, Central Bank of Islamic Republic of Iran, Second Quarter, Tehran. 2003-04, P. 1

resources of 23,000,000 million cubic meters at the end of 2001.¹

Iran's other mineral resources are largely under developed. Major coal mines are Khorasan, Kerman, Semnan, Mazandaran and Gilan lead in combination with zinc and other minerals is widely scattered. Copper is found in a belt extending from the Pakistan border to the erstwhile, soviet border Kerman is center of the copper production. Fire clay, chalk, lime gypsum ochre and Kaolin (China clay) are also produced in commercial quantities. Other mineral resources include Magnetite, Uranium, Chromium, Antimony, Manganese, Tin, Mica, Alum, Marbles etc.²

Iran's imports of Principal Commodities: -

With the development of the society, the sources of the economic growth and development has changed form internal market to international market. Today's import plays an important role for transforming the economy particularly for a developing economy. The composition of the imports of a country shows its tendency towards the zestive approach of development. A greater share of technology and capital import in the total import represents the inclination of the economy towards the industrialization and vice-versa.

The principal commodities of Iranian imports are comprised food and live animals, chemical product, iron and steel and machinery and transportation etc. Iranian total

¹ *The Middle East and North Africa*, 49th Edition, Europa Publications, London, 2003, P. 383

² *Ibid.*, P. 391

IRAN'S IMPORT OF PRINCIPAL COMMODITIES

Table: 3.1

Commodities	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
Food & live animals	2138	2124	2276	2446	1369	2404	2581	2508	1583	1953	1977
Grains and derivatives	1240	965	1047	1376	693	1444	1881	1705	878	1319	1390
Sugar its derivatives and honey	351	373	308	167	251	375	335	405	230	281	213
Raw non-edible product	753	860	758	551	649	660	770	647	596	648	707
Vegetable shortening	279	235	274	414	376	455	580	420	633	499	408
Chemical product	2876	2892	2689	2023	1376	1733	1931	1890	1774	1894	2027
Iron and steel	2927	4004	2481	1667	686	820	2049	1290	1287	1173	1819
Machinery and transportation	16264	16924	16498	10036	5525	3656	4205	5045	6348	4785	5172
Non-electric Machinery	3886	8576	10193	6957	4054	2285	2325	2672	3501	3021	2976
Electric machinery tools & appliance	1344	2516	2913	1780	834	892	1184	1444	1521	961	1085
Transportation vehicles	1034	3832	3392	1299	637	479	696	929	1326	803	1111
Value of Imports	18722	29677	29870	20037	11795	12313	15117	14196	14328	12683	14347

(in US million dollar)

Sources: - Various issues of Central Bank of Islamic Republic of Iran, Economic Report and Balance Sheet.



imports amounted \$18722 million in 1990-91 which increased to \$29870 million in 1992-93, but in later years of 1990s the total value of imports declined. In the year 1999-2000, Iran's total value import was \$12683 million.

From 1900 to 1970, agriculture was the major contributor to the Gross National Product. Even in the early 1970s, agriculture sector was major source of Government revenue and foreign exchange earning. The importance of agricultural product has been rising at an even faster rate and domestic agriculture is unable to keep pace. This growing demand is closely linked to rapid population growth and to increasing rural-urban migration. To meet the accelerating demand, the Government has increasingly relied on imports. The share of food and live animals in Iranian total imports was 11.41 percent in 1991-92 which increased to 15.39 percent in 1999-2000. In absolute term Iran imported food and alive animal worth of \$2133 million in 1990-91, this increased to \$2446 million in 1993-94 and decreased to \$1977 million in 2000-01. The average annual growth rate of imports of food and alive animal was 3.78 percent during the period of 1990-91 to 2000-01. The performance of Iranian agriculture sector was badly affected in the 1990s, due to flood in 1992 in northern region and drought in some years in 1990s. The major portion of agricultural imports was constituted by grains and its derivatives in all the time in Iran. In the year 1990-91, the share of grains and derivatives in Iranian total agricultural products import was 57.99 percent which increased to 72.87 percent in 1996-97 and fell

to 67.53 percent in 1999-2000. The main component of imports grains and derivatives are wheat and rice etc. The average annual growth rate was 10.44 percent during the period of 1990-91 to 2000-01. Another important component of agricultural product imports of Iran was sugar and its derivatives and honey. The share of sugar its derivatives and honey in Iranian total imports was 16.41 percent in 1990-91 which increased to 18.33 percent in 1994-95 and declined remarkably to 10.77 percent in 2000-01. In absolute term, Iran imported sugar and its derivatives and honey worth of \$351 million in 1990-91 which declined sharply to \$167 million in 1994-95 and slightly increased to \$213 million in 2000-01. During the period of 1990-91 to 2000-01, the average annual growth rate of imports of sugar its derivatives and honey was 0.77 percent.

During the period of 1990-91 to 2000-01, there was no definite trend observed in the Iranian imports of raw non-edible product. In the year 1993-94, the imports of raw non-edible growth viz. -27.3 percent in respect of last year and in the year 1994-95, recorded the highest positive growth i.e., 17.78 percent in respect of previous year, Iran imported raw non-edible product worth of \$753 million in 1990-91 which decreased to \$660 million in 1995-96 and slightly increased to \$707 in 2000-01. The annual average growth rate of raw non-edible product was 0.51 percent during the period of 1990-91 to 2000-01.

From the table 3.1, it can be observed that, Iran largely relied on imports of chemical product to meet the domestic

requirement. Chemical product always constituted large part in Iranian total imports. The share of chemical product in Iranian total imports was 15.36 percent in 1990-91 which decreased to 11.66 percent in 1994-95 and it again increased to 14.12 percent in 2000-01. In absolute term, Iran imported chemical product worth of \$2876 million in 1990-91, which decreased to \$1376 million in 1994-95, and again it increased to \$2027 million in 2000-01. During the period of 1990-91 to 1999-2000, the annual average growth rate of chemical product was -2.01 percent.

For the many years Iran has been a major purchaser of steel in the world market, and imported principally from Japan and Spain imports have emerged 2m -5m tone a year. Domestic consumption of steel was estimated at 3.5, tons a year in early 1989 and was projected to rise to 7m tons annually as post war reconstruction got underway. Total exports for 1994 were estimated at 1.5m tons. Despite its emergence as a steel exporters Iran is still net importer of steel. Iran imported iron worth of \$4004 million in 1991-92 that decreased to \$686 million in 1994-95 and again, it increased to \$1819 million in 2000-01. During the period of 1990-91 to 2000-01, average annual growth rate imports of iron was 1.41 percent. The share of iron and steel in Iranian total imports was 15.63 percent in 1991-92 which decreased to 12.67 percent in 2000-01.

During the period of 1990-91 to 2000-01, the largest part of Iranian imports had been contributed by Machinery and transportation. Iran imported this item worth of \$6,264

million in 1990-91 and the share was 86.87 percent in Iranian total import in the same year. But, the share of Machinery and transportation in Iranian total imports had declined over the period. The share of this category in Iranian total imports was 52.02 percent in 1991-92 which decreased to 36.04 percent in 2000-01.

Non-electric Machinery had constituted major portion in Iranian total imports during the 1990s. Iran imported non-electric Machinery amount of \$3,886 million in 1990-91 that increased to \$10,193 million in 1992-93, which was highest value of import of this item during the period of 1990-91 to 2000-01, but in the later year of 1990s, the value of imports of this item declined remarkably and came down to \$2,976 million in 2000-01. The average annual growth rate of imports of this item was 1.85 during the period of 1990-91 to 2000-01. Iran imported electric Machinery tools and appliance worth of \$1,344 million in 1990-91 which decreased slightly to \$1,085 million in 2000-01. The share of electric Machinery tools and appliance in Iranian total import was around 7 percent in whole period of 1990-91 to 2000-01 and the annual average growth rate of imports of this item was 5.39 percent during the same period.

The natural and physical characteristics of the country and the concentration of people and industries in certain regions have greatly influenced the development pattern of Iran's transportation network. Iran's rapidly growing economy has been helped by an expanding transport sector. Iran imported transportation vehicles worth of \$1,034 million

in 1990-91 which increased to \$1,111 million in 2000-01. However, the value of imports transportation vehicles showed ups and downs during the period of 1990-91 to 2000-01, but the annual average growth rate of imports of this item was 24.2 percent during the same period. The share of transportation vehicles in Iranian total imports was 5.52 percent in 1990-91 that increased to 7.74 percent in 2000-01.

From above analysis, we may say that the Iranian imports mainly constituted Machinery and transportation, chemical products, iron and steel and food products during the study period. Of them, machinery and transportation was major contributor in Iranian total imports during the whole period of 1990-91 to 2000-01. Iranian total imports amounted to \$18,722 million in 1990-91 which rose to \$29,870 million in 1992-93 receding 59.54 percent growth rates. However, in later years of 1990s the value of the imports declined drastically and reached to the value of \$12,683 million in 1999-2000. In 2000-01, the total imports increased slightly and estimated at \$14,347 million.

The composition of the Iranian total imports shows that the economy has been on industrialization path and on the way to greater level of development.

Iranian Exports of Principal Commodities: -

The composition of foreign trade of a country enables us to analyze the developmental process of that country and the rate and speed of structural changes operating in it. For example if we find on scrutiny that the country in question imports food grains and raw material but exports finished

IRAN'S EXPORT TO PRINCIPAL COMMODITIES

Table: 3.2

Commodities	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
Oil, gas and oil products	16012.0	16880.0	14333.0	14603.0	15103.0	19271.0	15471.0	9933.0	17089	24280
Agricultural and traditional goods	1937.4	1995.6	2516.1	3258.6	1711.0	1645.8	1250.7	1412.3	14780	1345.0
Fresh \$ Dry fruits	531.6	577.6	674.5	628.3	534.0	639.2	337.5	591.9	517.3	444.9
Pistachio	355.6	400.4	435.0	389.8	426.2	477.5	197.3	416.0	315.1	318.5
Raisins	43.6	39.5	43.0	51.7	37.0	49.1	25.0	37.9	53.9	50.7
All kind of skint leather	76.6	78.0	115.0	134.6	80.9	98.4	101.3	54.0	55.5	64.1
Carpet	1161.2	1105.6	1348.0	2139.9	919.5	642.5	635.7	570.1	691.2	581.2
Industrial Goods	660.0	970.9	1191.7	1510.0	1065.7	1413.1	1579.8	1588.2	1847.7	3061.8
Chemical Products	40.3	17.7	29.5	35.3	387.8	182.8	101.9	139.7	83.3	692.7
Copper bar, sheet & wire	82.8	131.6	140.6	106.8	67.7	40.6	41.2	28.2	83.1	07.8
Cost iron, iron & steel	29.1	142.6	398.8	340.5	161.8	69.9	183.9	138.9	219.4	274.3
Readymade clothes, Knitware, and all kinds of fabric	23.5	55.6	36.5	96.1	112.5	73.3	61.6	47.1	42.7	43.9
Total including others	18661	19868	18080	19434	18360	22271	18381	13118	21030	28461

Source:- Various Issues of Economic Report and Balance Sheet, Central Bank of Islamic Republic of Iran, Tehran.

goods, machinery and capital equipment, we can safely conclude that it has reached a high level of economic development. On the other hand, if it exports primary commodities like jute, tea, raw cotton, sugar etc, but imports capital equipment and machinery, finished goods etc we can conclude that the country is an underdeveloped one.

The principal commodities of Iranian exports comprise oil, gas, and oil products, agricultural and traditional goods. fresh and dry fruits are a major item of agricultural exports. Apart from carpets and all kind of skin and leather also export in significant amount. Amongst the exports of industrial goods, chemical products copper bar sheet and wire, cast iron, iron and steel, readymade clothes, knitwear and all kind of fabric are the major commodities.

Petrochemical are a priority sector in the Iranian economy and an important source of revenue contributing a major position of non-oil industrial exports. It is noteworthy that dynamic growth in petrochemicals output over the past few years has transformed Iran from a minor producer in the 1980s into a major player on west Asia's petrochemicals scene. In the year 1991-92, the share of oil, gas and oil product was 85.8 percent increased to 86.52 percent in 1996-97 and slightly fell to 85.3 percent in 2000-01. In absolute term, the exports of this item was \$16012 million increased to \$9271 million and further increased to \$24280 million in the same period. The export of oil and gas has grown at the rate of 9.09 percent annually during the period of 1991-92 to 2000-01. Since 1980, oil and gas has been constituted major

portion of the Iranian export. However, the export of oil product has a major source of foreign exchange earning. This helped in the industrialization process of the country. It has basis for imports of capital good which helped in further development of industrial sector of the country.

Despite the earth quake 1990 and flood in 1992 in the western region destroyed 5 percent of cultivated land. The performance of agricultural sector in export grew at satisfactory rate till 1994-95. The share of agricultural sector in Iranian total exports in 1991-92 was 10.38 percent and increased to 16.76 percent in 1994-95. However, the promises in second five year development plan which began in 1994-95, to encourage the export of agricultural sector. The export of this item showed declining trend from 1995-96 to 1997-98. the percentage decrease in export was registered -47.49 percent in 1995-96 from the year 1994-95 and again the great down fall in export was registered in 1997-98 i.e. - 24 percent over the previous year. This is due to export of pistachio nut badly affected in September 1997 by a European union prohibited of imports from Iran after toxic substance had been found in some consignments. Another reason for declining trends of export of agricultural product during the second half of 1990s was due to withdrawal of subsidies on pesticides and fertilizer by the Iranian Government. The major portion of export of agricultural product has contributed by fresh and dry fruits. In the year 1991-91, the share of fresh and dry fruits was constituted 27.43 percent in Iranian total export of agricultural products

and increased to 38.83 percent in the year 1996-97. The export of fresh and dry fruits declined by 58.6 percent in the year 1997-98 from the year 1996-97 and the export of total agricultural product declined by 24 percent during the same period, due to above mention reason. The overall annual growth rate was accounted -3.07 percent during the period of 1991-92 to 2000-01.

Iran exported all kind of skin and leather worth of \$76.6 million in 1991-92 which increased to \$134.6 million in 1994-95. This is highest amount of export of this item in whole 1990s. From 1995-96 to 2000-01 showed ups and downs in the export of all kind of skin and leather. In the year 1995-96 Iran exported this item \$80.9 million and then it decreased to \$64.1 million in 2000-01. In overall period, it registered annual growth rate of 2.5 percent.

From 1991-92 to 1994-95, the export of carpet was satisfactory, Iran exported \$1161.2 million in the year 1991-92 increased to \$2132.9 million in 1994-95. The share of carpet in Iranian total export was increased to 6.22 percent to 10.92 percent during the same period. The downward declining trends began from 1995-96. The export of carpet was \$991.5 million in 1995-96 and registered -56.88 percent decreased in respect of the year 1994-95 and export of carpet come down to only \$581.2 million in 2000-01. The annual growth rate recorded -8.43 percent during the period of 1991-92 to 2000-01.

The increasing trend in export of industrial goods has good sign for Iranian industrial development process. From

the 1970s, in each and every plan has a focus of attention to industrialization and diversification of the economy. The share of industrial goods in Iranian total export was constituted only 3.5 percent in 1991-92 increased to 10.7 percent in 2000-01. This increased in share was the result of massive industrialization efforts. As a whole, industrial goods growth rate was recorded 18.59 percent annual during the period of 1991-92 to 2000-01. However, the trends in export of industrial goods in 1990s showed that Iran has successes in industrialization of the economy in some extent, but still Iran has to travel long distance for industrialization of the country.

There were wide variation observe in the export of chemical product during the 1990s. During the period of 1991-92 to 2000-01, the export of chemical product was drastic increased in 1995-96 in respect of previous year, Iran export this item in 1995-96 was \$3878 million and increased almost ten times from the year 1994-95. Again in 2000-01, Iran export \$962.7 million and increased almost seven times from the year 1999-2000. The share of chemical product in Iranian total export was only 0.02 percent in the year 1991-92 increased to 2.11 percent in 1995-96 and further increased to 2.43 percent in 2000-01.

Copper bar sheet and wire is an important component of Iranian industrial export. During the period of 1991-92 to 2000-01, Iran export copper bar, sheet and wire was highest amount in 1993-94 i.e. \$140.6 million and lowest amount in 1998-99 i.e. \$28.2 million. However, the export share of this

item in Iranian total industrial goods export was 12.5 percent in 1991-92 decreased to 11.7 percent in 1994-95 and it came down to only 3.5 percent in 2000-01. In fact, from the period of 1995-96 to 1999-2000 was badly effected. From the period of 1995-96 to 1999-2000, the annual average export of this item was recorded only \$52.56 million as compared to \$115.45 million in during the period of 1991-92 to 1994-95.

Cost iron, iron and steel; emerge as an important item in the Iranian industrial goods export. Post-Revolutionary Government policies like those of the Shah, have been directed towards achieving self sufficiency in steel production and end dependence on imports. In 1980 steel accounted for almost one-sixth of total imports. During the 1980s and 1990s there were number of plant established or expand the existing plants with the help of foreign partner with latest technology. For example the Esfahan Steel Company and Ahwaz Steel Plants etc. However, the export cost iron, iron and steel was only \$29.1 million in 1990-91 and increased to almost four times in next year reached to \$142.6 million in 1992-93. The increasing trend was continued in next year and exported amount of worth of \$3988 million in 1993-94. Then down ward trends began from 1994-95 to 1996-97. In the year 1996-97, Iran was exported only \$69.9 million. But after that, the export of this item began improved and reached to \$274.3 million in 2000-01. During the period of 1991-92 to 2000-01, the average annual growth rate was registered 74.17 percent.

The Iranian export of readymade clothes, knitwear and all kinds of fabric was only \$23.5 million in 1991-92 increased to \$112.5 million in 1995-96 which was highest amount of export in during the period of 1991-92 to 2000-01. The export of this item showed ups and downs during the later years of 1990s. The share of ready made clothes, knitwear and all kinds of fabrics was only 0.12 percent in 1991-92 increased to 0.49 percent in 1994-95 and decreased to 0.15 percent in 2000-01.

From the above analysis we find that oil, gas and oil products occupied top position and share in total Iranian export was varied from 80 to 90 percent throughout of the 1990s. Agriculture sector occupied second position up to 1994-95 and performed satisfactory but second half of 1990s, their performance was quite disturbing. The export of industrial goods was satisfactory in entire period of study early years of the 1990s. The export of Industrial goods occupied third position but later years of 1990s they occupied second position.

Iran's Direction of Trade during 1990s: -

The direction of trade is an important indicator that determines the position of a country in the world market. If the trade of a country is directed towards developing countries, it represents that the country in the question is also less developed country with low level of technological and institutional developments which make the country less competitive to interact with highly developed infrastructure and other economic variables and vice-versa. The direction

IRAN'S EXPORT TO MAJOR COUNTRIES

Table: 3.3

Countries	1990-91 AT/SP	1991-92 AT/SP	1992-93 AT/SP	1993-94 AT/SP	1994-95 AT/SP	1995-96 AT/SP	1996-97 AT/SP	1997-98 AT/SP	1998-99 AT/SP	1999-00 AT/SP	Average	Compound growth
England	1512.4/ 7.83	1274.7/ 6.83	1537/ 7.73	1975.4/ 10.92	1789.6/ 9.2	1439/ 7.83	3907.6/ 17.45	3037.2/ 16.52	2204/ 16.80	3037.2/ 14.4	2171.41/ 11.50	8.05
Japan	3998.3/ 20.71	2629.5/ 14.09	2524/ 12.70	2476.4/ 13.69	2941.1/ 15.13	2774.9/ 15.11	3835.4/ 17.12	2787.3/ 15.16	2060.2/ 15.70	3237.8/ 15.39	2926.49/ 15.48	-2.31
Italy	1677.9/ 8.69	1128.5/ 6.04	815.4/ 4.10	397/ 2.19	758.1/ 3.90	1586.9/ 8.64	1821.9/ 8.09	1630.9/ 8.87	1122.3/ 8.55	1500.1/ 7.13	1243.9/ 6.62	-1.23
S. Korea	437/ 2.26	616.7/ 3.30	549/ 2.76	780.1/ 4.31	927.3/ 4.77	1107.8/ 6.03	1716.4/ 7.66	1280.2/ 6.96	648/ 4.93	1348.9/ 6.41	941.14/ 4.93	13.34
U.A.E	152.5/ 0.78	390/ 2.08	336.1/ 1.69	351.7/ 1.94	779.8/ 4.01	808.5/ 4.40	695.4/ 3.10	775.4/ 4.21	885.3/ 6.74	1583.8/ 7.53	675.85/ 3.64	29.69
France	596.1/ 3.08	410.7/ 2.20	609.1/ 3.06	449.8/ 2.48	398.1/ 2.04	847.8/ 4.61	721.2/ 3.22	683.9/ 3.72	444.5/ 3.38	575.7/ 2.73	573.69/ 3.05	-0.386
Germany	2283.1/ 11.82	1425.6/ 7.63	794.1/ 3.99	939.4/ 5.19	1202.6/ 6.18	785.2/ 4.27	570.2/ 2.54	427.2/ 2.32	434.2/ 3.30	472/ 2.24	886.16/ 4.94	-16.06
India	479.9/ 248	532.3/ 2.85	374.6/ 1.88	363.6/ 2.01	492.9/ 2.53	535.2/ 2.91	721.8/ 3.22	530.9/ 2.88	364.6/ 2.77	717.6/ 3.41	511.34/ 2.69	4.571
Greece	91/ 0.47	597.6/ 3.20	622.1/ 3.13	615/ 3.4	704.4/ 3.62	839.1/ 4.57	1118.5/ 4.99	988.9/ 5.38	651.2/ 4.96	810.1/ 3.85	703.79/ 3.75	27.496
Singapore	189.4/ 0.98	396.9/ 2.12	449.5/ 2.26	542.1/ 2.99	702/ 3.61	392.4/ 2.13	585.8/ 2.61	694.5/ 3.77	513.8/ 3.91	858.3/ 4.08	532.47/ 2.84	18.281
Other	3302.2/ 17.1	3012.8/ 16.14	3586.1/ 18.04	6566/ 36.31	5248.3/ 27.0	317.9/ 1.73	3803/ 16.98	1077.5/ 5.86	990.1/ 7.54	2722.7/ 12.94	3062.66/ 15.96	-2.12
Total	19305	18661	19868	18080	19434	18360	22391	18380.8	13118	21030	18862.78	-4.29

Source: Various issues of Economic Report and Balance Sheet published by Central Bank of Islamic Republic of Iran; Tehran

Note: AT -Absolute Term,

PS -Percentage Share in Iranian Total Exports

IRAN'S IMPORT FORM MAJOR COUNTRIES

Table: 3.4

Countries	1990-91 AT/SP	1991-92 AT/SP	1992-93 AT/SP	1993-94 AT/SP	1994-95 AT/SP	1995-96 AT/SP	1996-97 AT/SP	1997-98 AT/SP	1998-99 AT/SP	1999-00 AT/SP	Average	Compound growth
Germany	3430/ 18.32	5993/ 20.19	6939/ 23.23	3997/ 19.94	2209/ 18.72	1777/ 14.43	2100/ 13.89	1854/ 13.06	1660/ 11.58	1382/ 10.89	31351/ 16.42	-9.606
Japan	1933/ 10.32	3176/ 10.70	3639/ 12.18	2341/ 11.68	894/ 7.57	886/ 7.19	844/ 5.58	882/ 6.21	1005/ 7.01	590/ 4.65	1619/ 8.30	-12.35
Italy	1499/ 8.0	2575/ 8.67	2869/ 0.9	1939/ 6.68	1008/ 8.54	535/ 4.34	675/ 4.46	796/ 5.60	1188/ 8.29	901/ 7.10	1398.5/ 7.12	-5.499
England	1015/ 5.42	1390/ 4.48	1668/ 5.58	1007/ 5.02	544/ 4.61	505/ 4.1	685/ 4.53	689/ 4.85	574/ 4.00	439/ 3.46	851.6/ 4.60	-8.892
France	489/ 2.61	1026/ 3.45	814/ 2.72	663/ 3.3	479/ 4.06	498/ 4.04	437/ 2.89	675/ 4.75	556/ 3.88	685/ 5.40	632.2/ 3.71	3.816
U.A.E	971/ 5.18	1400/ 4.71	1588/ 5.31	1120/ 5.58	647/ 5.48	441/ 3.58	473/ 3.12	562/ 3.95	759/ 5.29	769/ 6.06	873/ 4.82	-2.558
Switzerland	546/ 2.91	793/ 2.67	760/ 2.54	525/ 2.62	212/ 1.79	509/ 4.13	812/ 5.37	531/ 3.74	326/ 2.27	336/ 2.64	535/ 3.06	-5.251
Australia	684/ 3.65	395/ 1.33	235/ 0.78	402/ 2.00	260/ 2.20	402/ 3.26	741/ 4.90	522/ 3.67	358/ 2.49	298/ 2.34	429.7/ 2.66	-8.818
Belgium	797/ 4.25	1212/ 4.08	1052/ 3.52	537/ 2.68	640/ 5.42	663/ 5.38	926/ 6.12	457/ 3.21	899/ 6.27	597/ 4.70	778/ 4.56	-3.159
India	105/ 0.56	92/ 0.31	242/ 0.81	224/ 1.11	214/ 1.81	272/ 2.20	231/ 1.52	230/ 1.62	204/ 1.42	199/ 1.57	196.3/ 1.29	7.362
Total	18722	29677	29870	20037	11795	12313	15117	14196	14323	12683	17873.3	-4.23

Source: Various issues of Economic Report & Balance Sheet, published by Central Bank of Islamic Republic of Iran, Tehran
Note: AT –Absolute Term,

PS –Percentage Share in Iranian Total Exports

of trade also shows the level of international relation of the country to the rest of world since the trade relations between two countries can be established only if both countries have a congenial relationship.

The direction of trade is discussed in two terms or there are two components of the direction of trade (i) import and (ii) export. Here we shall firstly discuss the direction of the Iranian export to the rest of the world followed by the total import demand of the Iranian domestic market from the international market. The period which has been chosen for the present analysis is the 1990-91 to 1999-2000.

The data on the Iranian exports to different countries are represented in the following table 3.3. The countries which are included for the present study are England, Japan, France, Germany, Italy, South Korea, Greece, UAE, Singapore, and India. The available data reveal that in 1990-91 the total Iranian export to the international market was \$ 19305 million in which Japan contributed \$ 3998.3 million and get the first place. The second highest contribution was made by Germany. During this year Italy, England and France are at third, fourth and fifth place respectively according to their contribution in absorbing the Iranian export. By absorbing \$ 479.9 million worth of Iranian export India stood at sixth position in 1990-91. The other countries like South Korea, Singapore, UAE, and Greece stand at seventh, eighth, ninth and tenth position in respect of Iranian export absorbing countries.

In the preceding years Japan has been the most an important country with whom the economic relation is most beneficial. The Japanese economy has remained the most suitable market for the Iranian exports. Except 1996-97, 1997-98 and 1998-99 (when Japan economy acquired the second position in absorbing the Iranian exports) Japan has imported value of Iranian commodities more than any individual nation. The total value of exports of Iran to Japan is highest in 1990-91 that declined in the preceding years. During the whole decade of 1990s, there are only three fiscal years in which the Iranian exports has grown positively.

In the first year of the decade of 1990s the economy of Germany has provided the second highest space for the Iranian commodities. But at the end of the decade the citizens of Germany has shown their least concern towards the commodities, exported by the Iranian. From the second highest incorporating economy of Iranian commodities, Germany becomes the lowest at the end of 1999-2000. In absolute term the Iranian exports value to Germany has declined to \$ 427.5 million in 1997-98 from \$ 2283.1 million in 1990-91. That partially maintained in the coming years and reached to \$ 472.0 million in 1999-2000. In terms of annual growth rate, the total exports earning from Germany grew by -37.55 and -44.29 percent annually in the years of 1991-92 and 1992-93 respectively. During the whole decade of 1990s the Iranian exports to Germany has negatively grown at the average annual growth rate of -12.48 percent.

The economy of England has been proved beneficial from the view point of Iranian exports. While accepting the Iranian commodities of worth \$ 1512.4 million, England was at fourth position. In the preceding years the economic ties between Iran and England become stronger. The total value of Iranian exports to England has increased continuously during the decade of 1990s. From the fourth largest economy (that supported the Iranian exports) it became the number one in 1996-97 and maintained this position during 1997-98 and 1998-99. The total exports value of Iran to England increased to \$ 3037.2 million which was \$ 1274.7 in the fiscal year 1991-92. Though the Iran's export performance to England has been very encouraging but during 1991-92, 1994-95, 1995-96, 1997-98 and 1998-99 it has registered negative growth rate of 15.71, 9.4, 19.59, 28.65 and 227.4 percent annually respectively.

The next important economy from the view point of Iranian exports is the economy of Italy. According to the available data the Iranian exports to Italy in 1990-91 is the third highest. In 1993-94 and 1994-95 Iranian commodities failed to lure the customers in Italy and the exports value declined to \$ 397 million and \$ 758.1 million respectively that brought the economy of Italy at the position of eight and sixth potential economy in consuming the Iranian commodities. During the whole period of analysis, the performance of Iranian exports to Italy has not been more convincing. There is only one fiscal year of 1996-97 in which Iranian exports to Italy is more than the exports value

of 1990-91. The Iranian exports to Italy grew by 32.74 percent during 1991-92 but in the next year it registered a negative growth of 27.74 percent that continued for -51.3 percent in 1993-94. On average the growth rate is 17.75 percent annually.

The consumers of India whose behaviour in respect of absorbing Iranian commodities are of crucial importance since the present study concentrates over the Iranian economic ties with India. In 1990-91 Iran exported goods and services equal to the worth of \$479.9 million to India and in this way Indian economy became the sixth largest economy that consumes the Iranian commodities. The table reveals that Iran has never concentrated over the Indian economy for marketing her products. In the next year though the total value of Indian exports has increased to \$ 532.3 million but in the coming year it declined and shrieked to only \$363.6 million. In the later years the exports earnings of Iran from India increased but in respect of increment in the total exports earning it are not encouraging. India from the sixth largest economy (that consumes the Iranian products) reached to ninth position in 1992-93 and at the tenth position in 1998-99.

The country that has been proved beneficial for Iranian exports is UAE with the imports of \$ 152.5 million, it is ranked with the 9th potential economy but its total import from Iran increased drastically and in 1999-2000, it becomes the 3rd largest economy that supports the Iranian exports.

Therefore, the existed statistics shows that there is no sign of a great change in the direction of Iranian exports.

South Korea is an economy who emerged as a strange trade partner with Iran in later years of the 1990s. Iran developed gradually their taste of their products in South Korean market during the period of 1990s. Iran exported to South Korea worth of \$ 437 million in 1990-91 increased to \$ 1107.8 million in 1996-97 and further increased to \$ 1348.9 million in 1999-2000. During the period of 1990-91 to 1999-2000, the average annual growth registered 23.95 percent. The share of South Korea in Iranian total export was 2.26 percent in 1990-91 increased to 6.03 percent in 1995-96 and slightly increased to 6.41 percent in 1999-2000.

France has occupied the 5th position in Iranian export with the share of 3.05 percent in the year 1990-91, but in the year 1999-2000 slipped to the 9th place with the share of 2.73 percent. The great down fall of exports in 1998-99 amounted \$ 444.5 million from \$ 683.9 million in 1997-98 and registered growth -93.49 percent. In absolute term Iran exported worth of \$ 596.1 million in 1990-91 increased to \$ 847.8 million in 1995-96 and fell down to \$ 575.7 million in 1999-2000.

The economy of Greece has been proved beneficial from the view point of Iranian exports while accepting the Iranian commodities of worth \$91 million in 1990-91. In the later years the economic ties between Iran and France became stronger. The total value of Iranian exports to Greece has increased continuously up to 1996-97. In absolute term,

Iran exports to France in 1990-91 were small amount i.e. only \$91 million which increased to \$1118.5 million in 1996-97 but it decreased to \$810.1 million in 1999-2000. The average annual growth rate was 2.21 percent in the 1990s.

From the available data it observed that the amount of exports from Iran to Singapore is very fluctuating during the 1990s. during the period of 1990-91 to 1999-2000, the highest positive growth in respect of previous year recorded in the year 1991-92, i.e. 116.84 percent from 1990-91 and highest negative growth in respect of previous year recorded in the year 1995-96 i.e. -44.1 percent from 1994-95. Singapore occupied 9th place with the share of 0.97 percent in 1990-91 in Iranian exports and end of the decade 1990s Iranian exports to Singapore was improved remarkably. In the year 1999-2000 Singapore occupied 6th place with the share of 4.08 percent.

Thus, from the above analysis, we find that in 1990-91 Japan at the top with the share of 20.71 percent in Iranian exports followed by Germany with the share of 11.82 percent and the third position occupied by Italy with the share of 8.64 percent. In the year 1999-200, Japan again at the top with the share of 15.36 percent followed by England with the share of 14.44 percent and the third place occupied by UAE with the share of 7.53 percent. Italy and South Korea placed at 4th and 5th position with the share of 7.13 and 6.41 percent respectively.

Now, we discuss the major countries to which Iran imported during the 1990s. These countries were Germany,

Japan, Italy, England, France, UAE, Switzerland, Australia, Belgium and India etc. The available data reveal that in 1990-91, total Iranian imports from different countries was \$18722 million that increased to \$29870 million in the 1992-93 but in later year of 1990s, the total imports became less. In the year 1999-2000 Iran imported only worth of \$12683 million.

In the preceding years, Germany has been the most important country with whom the economic relation is most beneficial. Iranian economy has remained the most suitable market for the Germany exports. In the whole decades of 1990s, Iran has imported Germany's commodities more than the any individual nation. The total value of exports from Germany is highest in 1992-93 that declined in the preceding years. During the whole decade of 1990s, there are only two fiscal years in which the Iranian imports from Germany has grown positively. The share of Germany in Iranian total imports was 18.32 percent in 1990-91 decreased to 10.89 percent in 1999-2000.

During the first three years of the decade of 1990s, the economy of Iran has provided the second highest place for the Japan commodities. But at the end of the decade 1990s, the citizens of Iran have shown their least concern towards the commodities exported by the Japan. In absolute term, the Iranian imports value from Japan has declined to \$590 million in 1999-2000 from \$3176 million in 1991-92. The highest positive growth rate in respect of previous recorded in 1991-92 i.e. 74.22 percent and highest negative growth in

respect of previous year was recorded in 1994-95, i.e. -44.73 percent. During the whole decade of 1990s, the Iranian imports to Japan have grown at the average annual growth rate of 3.54 percent.

In the first five years of the decade 1990s, the economy of Italy has occupied the third highest place in the Iranian imports. But in the mid 1990s, the citizen of Iran has shown their least concern towards the commodities exported by the Italy. Again, at the end of decade 1990s, Italy has retained the same position in Iranian imports. In absolute terms, Iran imported worth of \$2869 million in 1992-93 decreased to \$535 million in 1995-96. Again it increased to \$1118 million in 1998-999. In overall, in the decade 1990s the average annual growth registered 2.5 percent.

In the early years of the 1990s, the Iranian people had shown their interest in England's commodities. But from the mid years in the 1990s, England's commodities lost their confidence in the Iranian market. In absolute term, England exported to Iran worth of \$1015 million increased to \$1665 million which was highest amount in throughout the 1990s. In the year 1995-96 Iran imported worth of \$505 million decreased to \$439 million in 1999-2000. The share of England's commodities in Iranian total import was 5.42 percent in 1990-91 which slightly increased to 5.58 percent in 1992-93 and decreased to 3.46 percent in 1999-2000.

During the period of 1990s, the performance of Iranian imports from France has not been more convincing. There is only one fiscal year of 1991-92 in which Iranian imports

from the France is more than the one thousand dollar. Except the three fiscal years 1991-92, 1996-97 and 1997-98 experienced negative growth in respect of previous year. During the period of 1990-91 to 1999-2000, the annual average growth was -8.97 percent. In absolute term, France exported to Iran worth of \$1026 million in 1991-92 decreased to \$437 million in 1996-97 and increased to \$685 million in 1999-2000. The share of France in Iranian total import was only 2.61 percent in 1990-91, that increased to 5.48 percent in 1994-95 and there was almost same position i.e. 5.4 percent in 1999-2000.

In two fiscal years i.e. 1995-96 and 1996-97 Iranian imports from UAE has significant amount during the period of the 1990s. Iran imported amount of \$971 million in 1990-91 that increased to highest level i.e. \$1588 million in 1992-93. Then declining trends began and came down to lowest level \$173 million in 1996-97 and again upward trends began reached to \$ 769 million in 1999-2000. During the period of 1990-91 to 1999-2000, the annual average growth rate was 1.65 percent.

Another major trading partner of Iran is Switzerland. Iran imported amount of \$546 million in 1990-91 which increased to \$760 million in 1993-94. After that, Switzerland's commodities has loosed their confidence in Iranian market and declined to worth of only \$326 million in 1999-2000. The share of Switzerland in Iranian total imports was 2.9 percent in 1990-91 that decreased to 2.6 percent in 1999-2000.

Iran imported amount of \$684 million from Australia in the year 1990-91 that decreased to \$260 million in 1994-95 and slightly increased to \$298 million in 1999-2000. The remarkable increased in Iranian imports from Australia to \$509 million in 1995-96 from \$260 million in 1994-95 registered growth 140 percent. The annual average growth was registered 4.35 percent during the period 1990-91 to 1999-2000.

The next important economy from the view point of Iranian imports is the economy of Belgium. According to the available data the absolute amount of Iranian imports from Belgium has decreased from \$1212 million in 1991-92 to \$961 million in 1996-98. The share of Belgium in Iranian total imports was 4.08 percent in 1991-92 that increased to 6.12 percent in 1996-97. It is because of the value of Iranian total imports decreased by \$14560 million from 1991-92 to 1996-97. The average annual growth was 6.45 percent during the 1990-91 to 1999-2000.

From the available date, Indian exports to Iran occupied 10th or 11th place in throughout years in the decade of 1990s. The exports earning of India from Iran is not encouraging in the decade of 1990s and amount is never crossed the market of \$250 million. Iran imported from India worth of \$92 million in 1990-91 which increased to \$231 million in 1996-97 but that decreased to \$199 million in 1999-2000. Basically, India mainly exports agriculture goods, intermediate goods and capital goods etc. and Iran

imports these goods. From the data it can be say that, Indian exporter never exploited Iranian market properly.

Thus, from the above analysis we find that Germany occupied first place in Iranian imports with the share of 18.32 percent in 1990-91 followed by Japan with the share of 10.32 percent and third placed occupied by Italy with the share of 8.0 percent. In the year 1999-2000, Germany has retained her position with the share of 10.89 percent, second position occupied by Italy, with the share of 07.1 percent followed by UAE with the share of 6.06 percent and fourth and fifth position occupied by France and Japan with the share of 5.4 and 4.65 percent respectively.

Iran's level of agricultural development: -

Most of the countries of west Asia are having ecologically disadvantageous locations in terms of agricultural ecology. Largely, the scarcity of water is considered as most crucial factor for the survival of agriculture. The factor like erratic rainfall with high variability, less moisture retaining capacity of the soil and lack of water resource for irrigation are highly effective and limiting the extension of cultivated area to the total geographical area of the region. These factors are also responsible for a high rate of fluctuation in food grain production creating uncertainly in food grains availability as well as threatening the desired aim of food security. On the whole the region is characterized as most deficit in terms of food production in the world. Hence, mostly all the countries except of Turkey, are importer of food grains. On an average

the region is self sufficient only to the level of 45 percent on their local food production.¹ This deficit may increase, as the demand is increasing with the higher increase of population than food production. With the increase of income and phenomenal increase of urban population both qualitative and quantitative demand has increased causing a very high economic burden on these countries.

Iran as a Middle-Eastern Country is in a unique position to benefit from the agrarian experience of both East and West. Over half of its 165 million hectares an area more than six times of Great Britain, consist of salt desert and Barren Mountain. Cultivable land forms only a small part of the total area. From 1900 to 1970, Agriculture was the major contributor to the gross national product. Ever in the 1970s about half of the total Government revenue (excluding oil-related revenue) was derived from direct and indirect taxation on agriculture. The importance of agriculture is increasingly evident since demand for agricultural products are rising at even-faster rate and domestic agriculture is unable to keep pace.² This growing demand is closely linked to rapid population growth and to increasing rural urban migration. To meet the accelerating demand the Government has increasingly relied on imports. These imports have been financed by the enormous increases in oil revenue.

¹ *West Asia: An Introduction*, Centre of West Asia Studies Publication, AMU, Aligarh. 1994. P. 17.

² Cyrus, Salmanzadeh, *Agricultural Change and Rural Society in Southern Iran*, Middle East and North African Studies Press Ltd. Publication. London, 1980, P.

A variety of principal crops grow on Iran's fields. Irrigation facilities include modern water storage system as well as ancient 'qanat' system. Karman Shah, Kurdistan and Azerbaigan depend upon rain-fed agriculture. Around eighty percent of food output comes from irrigated land. The share of argritural sector to GDP fell slightly in the 1990s, from 23.9 in 1992-93 to 20.2 in 1996-97 and further small increased to 20.9 percent of GDP in 1999-2000. An objective of the Second Five Year Development Plan (SFYDP) was to encourage food self-sufficiency and transform Iran into a net exporter of agricultural produce. However, the aim were remained unfulfilled. The chief factor limiting the size of agricultural production are inadequate communications which limits access to markets, poor seeds, implements and techniques of cultivation. Scarcity of water and under capitalization, chiefly the result of the low incomes of peasant households and the failure of the Government to produce a sound agricultural policy. Natural disaster have also taken their toll. Early in 1992 nearly 5 percent of cultivated land, mostly in the north of the country was damaged by floods.¹

However, the percentage of population engaged in agriculture is concerned. It had been decline over the two decades in the year 1980, there were 38.5 percent population

¹ *The Middle East and North Africa*, 46th Edition, Europa Publication, London, 2000, P. 496

engaged in agriculture it declined to 32.3 percent in the 1990 and further declined to 28.2 percent in the year 1997.¹

Irrigated land under food crops in Iran accounts for about 35 percent area and 68 percent production. Rest of the 32 percent production comes from 65 percent area under dry land farming and it is this part of agriculture which offers great potential for the growth of agricultural income.² Nothing is as critical to farming in Iran as rainfall. Every where apart from the northern Caspian Coastal Zone and parts of the north-western region, rainfall is inadequate to support cultivation in most years. More or less half the surface area of the country receives a rainfall of less than 300 mm (12 inch). For working purposes, this approximates to the area in which dry land cultivation of cereals is marginal or impossible some 40 percent of the country experiences an average annual fall in rain, including snow, of between 300 and 600 mm (12-24 inch). Great variation affects both the amounts of falls and their periodicity.³ The highest rainfall between 763 mm and 1666 mm per annum takes places in the states of Gilan and Mazandaran situated in the north. Average annual rainfall in the state of Kerman and Khorasan is around 220 mm and 250 mm respectively and in Urmiyeh, in the north it is around 375 mm. it varies from 500 mm in Lorestan to 200 mm in Khuzestan. In

¹ *FAO Production Year Book*, 1997, PP. 342-343

² Khan, Azizur Rahman, "Prospects of Rain fed Farming and Associated Regional Productivity in Iran", *Journal of West Asian Studies*, AMU, Aligarh, No. 15, 2001, P. 100

³ Keith, Mc Lachlan, *The Neglected Garden*, I.B. Tauris and Co. Ltd. Publishers, London, 1988, PP. 17-18

Bushehr and Hormozgan it remains around 200 mm and 114 mm respectively. Around 13 percent of the area in Iran experiences less than 100 mm rainfall annually. Another 61 percent receives less than 250 mm. thus about 74 percent of the total land area get less than 250 mm of precipitation. In total 80 percent of the land area experience precipitation less than 300 mm while 250-300 mm. only 9 percent of the land receives more than 500 mm which is nearly satisfactory amount for assured cultivation, but net availability even of this amount is highly reduced. Owing to considerable evapotranspiration for example of Tehran annual rainfall is 224 mm but potential evaporation is 2700 mm.¹

The war with Iraq imposed numerous constraints on agriculture. Between 1980 and 1982, 10 percent of agricultural land fell under Iraqi occupation; a disproportionate number of volunteers for the war effort were drawn from the villages and the heavy financial burden of the war imposed limits on spending. Since the end of the war, despite drought in the western rain-fed areas and the earthquake of 1990, which destroyed irrigation works, orchards and farms in the fertile north western provinces of Gilan and Zanzan, the Ministry of Agriculture claimed to have succeeded in reviving the agricultural sector after three decades of decline. The Ministry reported that an annual growth in farm output of 6 percent had been achieved under the 1990-94 first five year development plan, sugar plants were now working at full capacity, agriculture had been

¹ Khan, Azizur Rahman, *Op.Cit.*, PP. 102-105

made more viable by reducing subsidies to farmers on products such as fertilizers and pesticides and water reservoirs had been expanded. Under the second five year plan which began in March 1995 the Ministry of Agriculture projected annual growth of 5 percent. It was planned to build some 20 dams during the term of second plan and to increase water utilization by cutting losses in irrigation canals. Subsidies on pesticides were to be phased out within three years and those on fertilizers within five years. The Ministry of Agriculture stated that the Majlis had approved the necessary legislation. Cooperatives were being encouraged and would be supplied with machinery and a guarantee that the Government would buy 70 percent of their production. The new plan aimed at the expansion of food processing industries with investment mainly from the private sector which has shown particular interest in processing plants for vegetables and fruits and dairy products. The Ministry also stated that, some imports would be necessary, especially of vegetable oil, of which about 85 percent of requirements are imported however a major effort was to be made to expand olive cultivation.¹

Due to faulty structure of a weak agriculture inherited by the post-revolution Iran food deficiency continued and in 1984 food imports touched a figure of \$3670 million with a decline in 1985. "Agriculture imports reached \$1900 million in 1987-88, according to Minister of Agriculture. In the year

¹ *The Middle East and North Africa*, 49th Edition, Europa Publication, London, 2003, P. 382

1990-91, the value of food imports through Government agencies was \$5300 million. Imports of wheat were estimated at 4.5 million tons, those of rice at 800000 tons and those of coarse grains at 1.3 million tons. According to the international Grains Council wheat import reached 5 million tons in 1995-96 and an estimated 7 million tons in 1996-97. Imports declined to 3.8 million tons in 1997-98 and 2.5 million -3 million tons in 1998-99.¹

In the year 2000-01, 12378.3 thousand tons of agricultural products valued at \$2600.7 million was imported and registered 3.3 percent in weight and 1.2 percent reduction in value, indicating reduction in unit value of imported agriculture products by 4.4 percent in respect of the year 1999-2000. Import of agricultural products constituted 18.1 and 4.7 percent of the value and weight of the total imports respectively. Import of wheat constituted 28.4 percent of value and 45.3 percent of the weight of import of agricultural products. Import of vegetable oil and rice amounted to \$ 408.6 million and \$ 339.1 million respectively. Import of red meat was \$ 26.1 million. In the year 2000-01, a total of 1446 thousand tons of agricultural products valued at \$976.5 million was exported registering 3.2 percent reduction in weight and 4.1 percent increase in value in respect of previous year. Export of agricultural products constituted 10.1 percent of the weight and 25.9 percent of the value of non-oil exports. The export of dried

¹ Waseem, S.M, "Agriculture in the Islamic Republic of Iran", *Journal of West Asian Studies*, AMU, Aligrah, No.15, 2001, P. 48

fruits was amounted \$ 427.348 million in 1999-2000 which increased to \$427.753 million in 2000-01, vegetables exported amounted \$172.867 million in 1999-2000 decreased to \$167.930 million in 2000-01. The export of live stock product was export \$118.671 million in 1999-2000 increased to \$ 167.711 million in 2000-01 showing increase of 41.3 percent in value during the same period. The trade balance of agriculture products with a deficit of \$1695 million in 1999-2000 and it was declined to \$1625 million in 2000-01.¹

Iran's Level of Industrial Development: -

Industrialization of Iran, under the Shah's initiative during the 1960s, proceeded on a scale that observers considered unrealistic, demanding too much too fast plans produced large-scale projects with inadequate infrastructure including Shia fundamentalist charges of "west-oxication" and anti-Islamic policies. Nevertheless, an appreciable number and variety of major industries were successfully established from food processing to Iran and steel production to automobile assembly. Joint venture with foreign corporation brought transfers of technology and training programme for Iranian labour, even though few venture achieved planned production levels.²

Rapid industrialization began during the 1960s at first by means of import substitution. First came the output expansion of a wide range of nondurable consumer goods, including textiles, clothing shoes and processed foods. The

¹ *Economic Report and Balance Sheet*, Central Bank of Islamic Republic of Iran Publication, Tehran, 2000-01. PP. 23-24

² Held, Colbert C., *Middle East Pattern*, West View Press, London, 2000, P. 492

output of refrigeration, television sets, coolers and other appliances made up the list of durable consumer goods. Gradually, the industrialization process broaden to include production of intermediate and capital good. Public and private investment in paper products, petrochemicals, steel, almunium, copper machine tools, buses trucks and automobiles, tires, paints, cements, fertilizers and communication equipment followed.

The development of a wide range of new industries in Iran has naturally changed the composition of Iran's external trade. The rate of increase of exports has accelerated in 1970s and 1980s. Imports, too, have exhibited a significant structural change. Imports of industrial capital goods, in particular have increased sharply, contributing more than half of the increase in imports during the 1963-76 period. Industrial increase in imports during the 1963-76 periods. Industrial machinery imports alone increased thirty times from \$ 100 million in 1962-63 to more than \$3 billion in 1975-76. The imports of transport equipment automotive components and parts rose nearly 10 times between 1971 and 1976, partly in response to the expansion of the domestic automobile industry and partly because of the dramatic demand for passenger cars.¹

During the 1960-76, industrial activity provided more than one fifth of the increase in GDP. In the same period, the annual average growth rate of manufacturing and mining

¹ Amuzegar, Jahangir, *Iran: An Economic Profile*, The Middle East Institute Publication, Washington D.C., 1977, PP. 147-148

alone exceeded 13 percent while that of power was 25percent. The annual growth rate of value added in manufacturing and mining during 1968-76 was about 15 percent up from 12 percent during 1965-67. In 1947, Iran had only 175 major plants with a total work force of about 10000. During the 1966-76, the number of workshops plants and factories rose from 112000 to 235000. The number of major factories increased from 3500 to 6200 and the work force in the sub sector rose from slightly more than a million to over 2.3 million.¹

The rapid growth of the Iranian economy during the two decades preceding the 1979 Revolution took place in the context of an import substitution Industrialization strategy. The paradoxical result of this strategy was to make the economy increasingly dependent on oil export revenues in order to finance the intermediate and capital goods imports needed by Iran's heavily protected industrial sector. Early signs of stress, indicating the need for industrial restricting occurred after 1975. However, the problem most acute in the 1980s, when the rapid growth in oil exports revenues finally came to an end. But in an environment marked by rapid economic and political change, for from embarking on fundamental economic reforms, the post-revolutionary Government adopted policies throughout the 1980s that

¹ *Ibid.* , PP. 78-79

further exacerbated prevailing inefficiencies and the rigidity of the industrial structure inherited from the old regime.¹

Despite the quantitative discrepancies within first two five year plans, one important qualitative aspect of post revolutionary, and especially postwar, economic development of Iran has been the process of industrialization. The inward looking policies of first two five year plans hand in hand with the diminishing financial base of the Government have evidently led to a degree of development of domestic manufacturing that Iran had not experiences before. The introduction of a law in the early 1990s that protected domestic producers by forbidding the import of all products that were produced domestically in sufficient amounts had a direct effect on encouraging domestic industries to invest in manufacturing. Although this approach of import substitution favoured a number of state monopolies and secured them against foreign competition, it also led to the establishment of a number of small to medium sized manufacturing companies that have grown based on the growing domestic market. Evidently, as a result of a combination of socio-economic factors, the nature of Iran's domestic market also has changed. While in the 1970s and 1980s domestically manufactured products had a very limited market, the growth of a new and confident urban middle class population that demands modern products but cannot afford to pay for foreign made items has led to a new demand for domestically

¹ Hassan, Hakimian and Massoud, Karshenas, "Dilemmas and Prospects for Economic Reform and Reconstruction in Iran", Parvin Alizadel, (ed.). *The Economy of Iran*, I.B. Tauris Publishers, London, 2000, PP. 33-34

produced manufactured goods. Furthermore, the emphasis of first two five year plans on promotion of non-oil exports and the various policies in this direction, helped improve the quality standards of Iranian industrial products. Although Industrial production is still lagging behind international quality and management standards, the general development in this regard can be considered one of the qualitatively positive processes in Iran's post revolutionary economic development.¹

From the table 3.5, between 1976 and 1986 the number of industrial wage workers (including Government employees) declined by 11.3 percent from 105100 to 93200. On the other hand the number of self employed workers engaged in industries activities increased from 309000 to 445000 (44.01 percent). In the family workers in industrial sector engaged decreased from 411000 to 65000 accounted 84.18 percent decreased and the total number of employed in industrial sector decreased from 1824000 to 157500 during the period 1976 to 1986. Between 1986 and 1996, the number of industrial wage workers (including Government employees) increased by 83.56 percent from 931000 to 1709000. On the other hand, the number of self employed worker engaged in industrial activities increased 445000 to 653000 (46.74 percent). Family workers who engaged in industries sector increased from 65000 to 242000 accounted nearly three times

¹ Bijan, Khajeshpour, "Iran's Economy: Twenty Years after the Islamic Revolution", Esposito, John L and Ramazani, R.K., (ed.), *Iran at the Cross Road*, Grave Publication, New York, 2001, PP. 103-104

Changes in Occupational Structure 1976, 1986, 1996 (in 1000 words)

Table: 3.5

Sections	1976				1986				1996			
	Total	PTE	Industry*	PIE	Total	PTE	Industry*	PIE	Total	PTE	Industry*	PIE
Govt. employees	1673	19.0	265	14.52	3454	31.39	491	31.17	4258	29.22	743	26.32
Entrepreneur	182	2.1	50	2.74	341	3.09	67	4.25	5287	3.62	126	4.46
Self-employed	2810	31.9	309	16.94	4398	39.97	445	28.25	5199	35.67	653	23.13
Family Workers	1021	11.6	411	22.53	462	4.19	65	4.12	797	5.46	242	8.57
Wage Workers ⁺⁺	3072	34.9	786	43.09	1882	17.10	440	27.93	3327	22.83	966	34.23
Not Specified	41	0.5	2.4	0.13	464	4.21	67	4.25	463	3.17	92	3.26
Total	8799	-	1824	-	11002	-	1575	-	14572	-	2822	-

Source: - Central Bank of Iran Reports 1980, 1988 and 1997, Tehran

Indication:

- PTE - Percentage Share in total employment
- PIE - Percentage share in total industrial sector employment
- * - Includes manufacturing, mining, water, gas, and electricity
- ++ - Includes all wage and salary in the private sector

GDP GROWTH IN DIFFERENT ECONOMIC SECTOR

Table : 3.6

Sector	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	Average
Agriculture	2.3	1.4	1.9	1.5	2.0	2.3	3.6	3.5	9.5	-0.3	2.77
Manufacturing and Mining	3.0	3.9	0.3	0.7	4.9	5.5	7.8	5.4	0.1	4.4	3.6
Oil	4.0	2.4	1.1	0.5	-5.0	0.9	1.9	-5.3	-0.8	-1.0	-0.13
Service	3.8	3.8	3.3	2.2	2.5	2.4	5.2	4.3	-0.1	4.3	3.17
GDP	12.6	10.9	5.5	5.0	2.0	4.5	5.8	3.4	1.8	3.2	5.47

(In percentage)

SHARE IN THE COMPONENT OF MANUFACTURING AND MINING

Sector	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	Average
Manufacturing	68.7	69.2	68.3	67.1	66.2	66.3	65.5	67.3	68.5	67.3	67.4
Mining	2.7	2.5	2.5	2.6	2.5	2.6	2.5	2.4	2.6	2.5	2.54
Electricity, Gas & Water	10.3	10.2	10.5	11.4	12.1	12.1	12.0	11.9	12.5	12.6	11.56
Construction	18.3	18.1	18.7	18.9	19.2	19.0	20.0	18.4	16.4	17.6	18.46

Source: - Various Issues of Economic Trends, Economic Research and Policy Department, Central Bank of Islamic Republic of Iran, Tehran


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IRAN'S NATIONAL ACCOUNTS (at the current prices)

Table: 3.7

Year	GDP at factor cost	Sectoral value-added				
		Oil	Non-oil	Agriculture	Manufacturing and Mining	Services
1992	48672.6/100	3989.7/8.20	45192.4/92.8	11221.6/23.05	9778.2/20.05	24192.6/49.70
1993	64400.8/100	5839.7/8.0	59235.2/92	15392/23.90	12952.7/20.12	30890.5/47.98
1994	93518/100	16495/17.63	77982/83.37	19446.1/20.79	17389.9/18.59	41146/43.99
1995	129350.8/100	24433.2/18.13	105913/81.88	27272.8/21.08	24112/18.64	54528.2/42.15
1996	180800.1/100	29068.6/16	152472.1/84.33	40091/22.17	35577.3/19.68	76803.6/42.15
1997	235757.2/100	35914.7/15.23	201004.3/85.25	47803.2/20.28	49543.1/21.14	103696/43.98
1998	277664.8/100	30024.6/10.8	247640.2/89.2	55819.8/20.1	61794.3/22.3	130026.1/46.8
1999	327595.7/100	21407.5/6.5	306188.2/93.5	72421.5/22.1	76353.2/23.3	157413.5/48.0
2000	416696.7/100	35044.1/8.4	381652.6/91.6	86996.7/20.9	94908.5/22.7	199747.4/48.0
2001	576493.1/100	101705.3/17.6	474787.8/82.4	79120.9/13.7	110105.0/19.1	295101.04/51.2
Average	235094.98/100	30392.24/12.64	205206.78/87.63	45558.56/20.80	49251.42/20.56	111356.49/46.39

Source-- Various Issues of Economic Trends, Economic Research and Policy Department, Central Bank of Islamic Republic of Iran, Tehran.

(Billion Rials)

increased and the total number of employed in industrial sector increased from 1575000 to 2822000.

It can be observed from table 3.6, which the GDP growth rate has declined drastically between the years 1990-91 to 1999-2000. The GDP growth was 12.6 percent in 1990-91 which came down to 3.2 percent in 1999-2000 and average annual growth rate during the period was estimated to be 5.47 percent. In 1990-91, the oil sector highest growth rate of 4.0 percent which came down a negative growth rate - 1.0 percent in 1999-2000. The service sector recorded second highest growth rate of 3.8 percent in the year 1990-91, which rose to 4.3 percent in 1999-2000. Manufacturing and mining placed at third place, achieving 3.0 percent growth rate in 1990-91, which rose to 4.4 percent recording highest growth rate in the year 1999-2000. The agricultural sector recorded the lowest growth rate of 2.3 percent in the year 1990-91, which went down to a negative growth rate of 0.3 in 1999-2000.

The manufacturing and mining sector recorded the highest annual average growth rate of 3.6 percent during the study period. The oil sector recorded the least annual average growth rate at -0.13 percent.

From the above analysis we may conclude that the growth rate of GDP has declined sharply from 12.6 percent to 3.2 percent between 1990-91 to 1999-2000. This decline in GDP growth rate was mainly due to decline in oil and agriculture sector growth rate. Moreover, the average annual

GDP growth rate was 5.47 percent during the 1990-91 to 1999-2000.

It may be summarized from the analysis of the table 3.7 that GDP at factor cost had been continuously rising during 1992 to 2001. From 1992 to 1996, GDP had been increasing at an increasing rate but from 1997 to 1999 it rose at decreasing rate. In the last two years of the study period it increased at increasing rate. The share of oil sector in GDP fluctuated between 6.5 percent to the highest 18.13 percent during the study period. However, the average annual share of this sector is estimated at 12.64 percent of GDP between 1992-2001. In the non-oil sector the share ranged between 81.88 percent to 93.5 percent of GDP during 1992 to 2001. And the average annual share was 87.63 percent of GDP over the period. Among the non-oil sector, agricultural manufacturing and mining and services sector contribution in GDP was 20.8, 20.56 and 46.39 percent respectively on average annual basis during 1992 to 2001.

Petrochemical Industry: -

The first concession for exploitation of oil in Iran was granted by Nassereddin Shah in 1872 to Julius de Reuter, who failed to discover oil. In 1901, Mozaffeseddin Shah granted a 60 year exclusive right to William Knox D'Arey, a British subject to explore, develop and market petroleum and related products throughout Iran, except for the five Northern provinces. The first exploitation company was organized in 1903. The first successful drilling was made in 1908, and the Anglo-Persian Oil Co. (APOC) was formed in 1909 in

Masjed Soleiman in the Southwest. The company was renamed Anglo-Iranian in 1935.¹ A long series of disputes between the Iranian Government and Anglo-Iranian ended with the nationalization of the petroleum industry by Iran in 1951 and the replacement in 1954 of Anglo-Iranian by what become known as the consortium until it was dissolved in March 1979.

During the 71 years that elapses from the establishment of the oil industry, prior to the advent of the Islamic Revolution. There were a number of oil, gas and petrochemical units constructed and installed which greatly enhanced the nation's economy and political status. However, such activity was in no way exempted from dependence and affiliation to multinational companies in consonance with the other sectors within the Iranian scope of activity. The transfer and consolidation of technological progress was scant and could well be contrasted to the speed of a tortoise, while this policy justified the presence of a large contingent of foreign experts under the guise of technical experts training the local staff for the operation of sophisticated technology. However, with the advent of the Islamic Revolution, all oil exploration and production contracts concluded under the former regime, between the oil industry and foreign multinational companies were null and void. Capitulating on the fact that the foreign experts were

¹ Amuzegar, Jahangir, *Op. Cit.*, PP. 50-51

no longer exploiting the natural resources of the Iranian nation.¹

The Shah had planned a huge petrochemical sector that would not only meet domestic consumption, but also provide \$ 2000 million worth of exports by 1983. Development of the industry was paralyzed after Revolution. In 1983, the ministry of oil announced several new plants were to be built with the aim of not only self sufficiency but also an exporter of surplus nitrogenous, fertilizers, plastics and other products. Indeed, Iran intended to become a leading world producer of petrochemicals during the 1990s. At that time the sector comprised the following major ventures. The Iran fertilizers Co., the Razi Chemical Co., the Abadan Petrochemical Co., and the Kharg Companies were nationalized in 1979 and were administered by the national petrochemical Co. (NPC) under the Minister of Oil.²

Iran's oil policy and preoccupation in the post 1946 period have been at the heart of the country's development strategy, overshadowing all other economic policies and preoccupations. The decisions with respect to the management exploration, production and marketing etc. have been at the top of the nation's economic agenda and priorities.

The privatization of Iran's petrochemical industry which was initiated with the first five year plan (1990-95) remained unchanged under the second plan (1995-2000).

¹ *Petroleum Industry of Iran after the victory of the Islamic Revolution*, Public Relation and Guidance, Petroleum Ministry Publication, Tehran. 19990. P. 15

² *The Middle East and North Africa 2003*, Op. Cit., P. 342

Some leading sector of the economy, an invitation was issued to the private sector in 1991 to participate in the petrochemical industry. Iran's particular interest is to enter into petrochemical joint ventures with foreign interests; provided that the projects are established in Iran raw materials and natural gas are readily available. However, existing legislation in Iran does not impede the participation of foreign partners in new projects, provided the projects are 51 percent owned by Iranian interests either Government or private. Participation would be in the form of equity, while joint ventures with foreign partners are being seriously considered. The national petrochemical company (NPC) has taken positive measures to launch privatization in the petrochemical sector at home by setting part or all of the existing and less strategic petrochemicals plants to the private sector. Iran's petrochemical production had risen tenfold as a result of the first five year plan increasing from 0.8 million tones per year prior to the plan to a projected 9 million tones per year in 1994. Iran's deputy oil Minister and President of NPC had disclosed in 1994 that NPC's direct investment in petrochemical would be limited to \$ 1.8 billion, with the private sector expected to invest an additional \$ 2 billion. As far foreign investment in Iran, according to existing legislation (1994), foreign ownership in the petrochemical industry is restricted to 49 percent of the share capital with a 51 percent majority to be held by Iranians.¹ The company expects to attract foreign investment

¹ "Iran Joins Ranks of Major Middle East Petrochemical Producer", *Middle East*

to the petrochemical industry because of the generous incentive offered, the availability of the raw materials and the developed internal market for petrochemicals. Despite its failure so far to carry through its policy of privatizing some parts of the petrochemical industry, NPC is still committed to expanding the role of the private sector in that industry.

During the decade of 1970s, the Iranian economy was booming the production and export of oil. The value of oil revenues had been subject of wide fluctuation during seventies and eighties. In 1970, Iran's oil revenues were worth \$2358 million and rose to \$ 5617 million in 1993, an increment of about 138 percent and again in 1974 it was to the tune of \$20904 millions. This increasing trend in the oil revenues continued up to 1978 with the some fluctuation in various years. Since 1979, a continuous decline in seen in the oil income of Iran due to turmoil in the Iranian economy during the 1978 and 1979 and after that because of Iraq-Iran war. In 1979 Iran exported oil worth \$19186 million which decreased to \$ 12055 million in 1981. It increased to \$ 19225 million in 1983 but again in 1984 it was only worth \$ 12255 million. The oil income of Iran reached to its lowest ebb in 1986, when it reached to its all time low level of \$ 6261 million. This was mainly due to a modest decline in oil exports coupled with the steeply declining oil prices in international market. It is seen that in 1970s and 1980s, the share of oil products in total exports was considerably high. In 1971, oil had provided 91.4 percent of the total value of

exports which increased to 97 percent in 1974, and continued in the same range up to 1979. During the 1980 and 1981 it's declined to 95 percent and again increased in the range of 99 percent between 1982-85. After 1985, the share of petroleum in the total exports of Iran again started to decline and in 1987 it was only 90 percent of total export.¹

With the inception of five year development plan after revolution, oil sector considered as a priority sector for earning of foreign exchange. In the year, 1990-91 Iran exported worth of \$ 17993 million oil and gas which decreased to \$ 14333 million in 1993-94. After that oil sector had shown some improvement in oil sector. In 1996-97, Iran exported worth of \$ 19271 million; but again declining trends began and reached to \$ 9933 million in 1998-99, which was lowest ebb during the 1990s. There were drastic increased in exports of worth of \$ 17089 million in 1999-2000, and accounted 72.04 percent increased over the previous year. In the next year, 2000-01, Iran exported oil worth of \$24280 million and recorded 42.07 percent increased from the last year. The share of earning foreign exchange from oil had been subject of wide fluctuation during the 1990s, the share of oil in Iranian total exports was 93.20 percent in 1990-91, which increased to 75.14 percent in 1994-95 and again that increased to 85.30 percent in 2000-01. however, the share of oil in Iranian exports during two

¹ OPEC Annual Statistical Bulletin, 1987, and also see, MEES, Vol. 36, No. 6, November 9th, 1992

decades but still, oil is the major contributor in earning of foreign exchange for Iran.¹

Major industries-

Government policies are directed towards achieving self- sufficiency in steel production and ending dependence on imports. In 1980 steel accounted for almost one-sixth of total imports. Domestic production and development plans were severely affected by the revolution. The war with Iraq and old- fashioned coal fired steel mill. In January 1992, Iran makes a \$ 600 million with Danieli of Italy to expand steel making and rolling capacity at the plant. In October 1994, the plant was producing at 2 million tons a year which was slightly above design capacity. A 470 million expansion plan was under way to raise output to 2.4 million tons a year in 1997. In December 1994, Iran also made a contract with danieli to expand capacity at the existing Isfahan steel co complex to 3.2 million tons a year by adding a line for nearly 200000 tons of flat products. The Isfahan steel mill in 1994 had convert the coke burning technology to by using natural gas, that's why the complex become a centre for new technological development in steel. Hylsa of merico has a contract at Iran's second largest production facility, the Ahwaz steel plant to expand the unit's capacity to 1.1million tons a year and eventually to 1.7 million tones in a year. In the year 1993, that production at the plant had improved and t6hat it was now producing quality steel for export by 1996,

¹ Various issues of *Economic Report and Balance Sheet*, Central Bank of Islamic Iran Publication

the Ahwaz Complex was producing 1.5 tons a year. Another direct reduction plant with a capacity of 700000 tons a year using the new Iranian technology developed at Isfahan was planned to begin production in 1998. In mid 1996, the national Iranian Steel Co. (NISCO) had secured a \$ 561 million loan from Japanese and European banks to finance the renovation and upgrading of steels at Ahwaz, Khorassan and Miyaneh to be carried out by Danieli of Italy. The NISCO was also engaged in negotiations with foreign companies for the construction of 1 million tons per year integrated steel mill in Kerman. In 1996, NISCO announced a development plant to expand steel production capacity by 1 million tons a year until 2006 when total capacity is projected to 17.5 million tons a year. Total exports for 1994 were estimated at 1.5 million tons. Despite its emergence as a steel exporter, Iran is still a net importer of steel. Row steel production in 1998-99 was 5.7 million tons.¹

Cement Industry: -

Annual cement production doubled between 1976 and 1986, reaching 13 million tons in 1986. Output declined to 12.5 million tons in 1988. Two plants have been built in Kurdistan and Hormuzgan and 2300 tons per day plants at Ormiyah Commerce operation in 1989. In 1990, the ministry of industries had plans to increase the total national output of cement to 33million ton per year by the late 1990s. Some 27 new cement works were to be built at a cost of US \$ 800 million in the five years to 1995. In 1990 the annual capacity

¹ *The Middle East and North Africa*, 2000, PP. 513-514

of the existing 15 cement plants was 17 million tons but only 12 tons per year was being produced owing to shortage of foreign exchange and electricity. In 20th march 1993, Iran produced 16 million tons and annual domestic demand at 20 million tons. In November 1992, the ministry of Industries stated that 19 cement plants costing 555 million were under construction and another 31 in principle agreements had been signed. In January 1995, 20 new cement plants would start production within two years, raising national output to 25 million tons and allowing substantially exports officials stated that some 40 cement companies were producing 13.7 million tons a year. In August 1994, the ministry of industries had started that cement plants with a combined capacity of more than 9 million tons a year would be built during the SFYDP period raising national capacity to 26 million tons.¹

Textile Industry: -

The first modern textile factory in Iran was established by the Government in Isfahan, central Iran in 1925. at the end of 1998, 420000 were working in the textile sector, over 150,000 tons of beaten cotton were produced in the country annually and there were 39 spinning factories, 61 spinning and knitting factories, 482 knitting factories and 200 dying factories active throughout the country. During the period of war with Iraq domestic textile industries were faced a number of problems such as ageing equipment, lack of spare parts, inability to import their needed parts and raw materials

¹ *The Middle East and North Africa*, 2000, P. 511

and labour problems. Because of some economic issues and little attention paid by officials concerned, the area of land under cotton cultivation has dropped to 198,000 hectares in year 1996 from 370,000 hectares in 1974. After revising agricultural policies and encouraging farmers to cultivate cottons the areas of lands under cultivation rose to 260,339 hectares in year 1997. Now Iran is capable of producing 500,000 tons a year. In case due attention is paid to expansion of cotton cultivation, 180,000 tons of the needs of Iranian textile factories can be met domestically and it additin, die to the higher quality of domestically produced cotton textile products can be exported as well. The total production of cannabis in the world stand at 3.5 million tons and the total area of lands under cultivation of cannabis are 2.2 million hectares with an average yield of 1.6 tons per hectares. In Iran, annual cannabis production stands at 2000 tons and the area of land under cultivation of ccannabis is 2000 hectares. The average yield of this product is one tons per hectares. Presently, there are four spinning and knitting units in the country which produce cannabis. The products of the plants include cannabis thread, cannabis jute and cannabis socks. The raw materials used by the units is cannabis or jute, which is imported from abroad the domestic consumption of cannabis products stands at 85000 tons a year a major part of which is imported. At present there are 974 tricot knitting plants operating across the country. There are further establishment of 605 other units, whose capacities range from 45290 to 263366 tons. As far polyester fibers,

polyocril plants of Isfahan now produce 20000 tons of this kind of fibers, but the domestic textile industries need over 60000 tons of polyester per year.

Some 420000 worker are working in textile industries in Iran, who constitute 30 percent of the total staff of industries sector. In addition hundreds of thousands of farmers are working on cotton farms and thousands of others earning their living through trade of cotton while Iran's earning from textile exports 369 million dollar per year.¹

Iranian Economic Policy and Trade Relation with Outside the World: -

The Iranian economy has experienced an eventful two decades since the 1979 revolution. Events such as the revolution itself and its social and political consequences, the 1980-88 Iran -Iraq war, as well as economic sanctions, emigration of experts and flight of capital have all had their impact on the country's economic development. The most severe shocks to the Iranian economy was the mass nationalization of industries and economic entities, initially under the name of "confiscation of assets of the Royal family and its affiliates" but later it derived from the revolution's economic philosophy, all of these causes to put 60 to 80 percent of the economy under the hand of the Government. The article 44 of the constitution of the Islamic Republic of Iran, divided the economy into three sectors viz. state, cooperative and private. The state sector is to include all

¹ Alikhani, Mozaffar, *A Glance of Textile Industry in Iran*, Chamber of Commerce, Industries and Mines of the Islamic Republic of Iran Report Publication, Tehran, 1988

large scale and mother industries, foreign trade, major minerals, banking insurance, power generation, dam and large scale irrigation network radio and television post telegraph and telephone services, aviation shipping roads, railroads and the hike, all these will be publicly owned and administered by the state. The cooperative sector is to include cooperative companies and enterprises concerned with production and distribution in urban and rural areas. Lastly, the private sector consists of those activities concerned with agriculture, animal husbandry industry, trade and services that supplement the economic activities of the state and co-operative sector. Furthermore, the article 81 of the Iranian constitution tells about foreign investment, which was damaging in the long run states 'the granting of concessions to foreign individuals and companies is prohibited'. Although the law never elaborated what it mean by concessions.

After Islamic revolution, the economic condition of the country became worst, as a result of the hostage taking in the American embassy in Tehran in 1979; the country was sanctioned by western countries, especially the United States, putting additional pressure on Iran, which was heavily relying on American products for its industry, military and oil sector. Another major cause was, the war with Iraq (1980-88) took place in the country's oil rich

province, Khugestan limiting the Government's access to oil exports income.¹

The Iranian constitution differs from the other constitution of any country in respect of the council of guardian, empowered by the constitution to ratify laws passed by the Majles whether it is Islamic or unislamic.

Development Plans: -

The concept of development planning was introduced on 1947 by the Shah's regime, whose fifth and last plan ended in March 1978. The first five years development plan of the new Islamic Republic, drafted in 1981 -82 was scheduled to begin in march 1983 but the war (1980 -88) with Iraq, the first five years development plan was eventually execute in January 1990. Its primary objective being to remove the legacy of the economic burdens brought about by the Iraqi invasion of Iran. It recorded an annual economic growth rate of 8 percent, the creation of some 2m new jobs, the rehabilitation and expansion of the industry and greater decentralization and private sector participation.

The first five year development plan's major achievements reportedly included the transfer of a number of public sector industries to the private sector, average GDP growth of 7.3 percent and annual growth of 5.6 percent in agriculture, 15 percent in the industrial sector, 18.9 percent in water, gas and electricity and 11.9 percent in the transport sector. During the first plan, the Government investment

¹ Bijan, Khajeshpour, "Iran's Economy: Twenty years after the Islam Revolution", Esposito, John L., and Ranmazani, R.K. (ed.). *Iran at the Cross Roads*, Palgrave Publisher, New York, 2001, PP. 215 -218

continued to overhead private investment at 14.1 percent and 8 percent respectively.¹

Third five year Development Plan (2000 –2005):

The third five years development plan was formulated and it provided guideline covering 26 sectoral and intra sectoral areas and also prepared framework for resolving structural impediments and economic difficulties of plan during the plan period.

The basic objectives of plan are as follows

- (i) The financial position of all public enterprises will be assessed with the aim of restructuring them.
- (ii) Oil stabilization fund will be created for reducing budget reliance on oil revenue.
- (iii) The Central Bank will prepare the condition for the operation of private bank and private non –bank credit institutions.
- (iv) To reform administrative system and human management.
- (v) The Government extends facilities to investors who participate in job creating plans and small-scale industries in proportion to their financial contributions in project.
- (vi) To improve the export sector during the plan Government designed policies, the customs duties and tariff of imported raw material and intermediate goods used in production of exportable goods will be refunded after the export

¹ *The Middle East and North Africa*, 2000, *Op. Cit.*, PP. 495, 496

Quantitative Targets in 3rd five years Development Plan
(2000/01 – 2004/2005)

Percent change

Sector	2001	2002	2003	2004	2005	Annual Average
GDP	4.5	5.5	6.5	6.7	6.8	6.0
Non-oil/gas GDP	5.9	7.0	7.2	6.8	7.1	6.8
Total Investment	6.0	6.9	7.3	7.8	7.9	7.1
Private	6.1	9.5	9.7	9.6	7.6	8.5
Public	5.6	2.8	3.3	4.7	8.4	5.0
Private consumption exp.	3.3	3.4	3.5	3.6	3.7	3.5
Public Consumption exp.	6.1	0.3	1.5	3.5	1.9	2.5
Liquidity (M)	20.8	18.0	15.7	14.2	13.1	16.4
Inflation	19.9	17.4	15.3	14.0	13.0	15.9

Source: Economic Trends Central Bank of Islamic Republic of Iran, 2002/03, third Quarter, Tehran.

of goods and the exported goods and services are exempted from any tax or levy.

- (vii) To encourage the export of non-oil commodities and technical and engineering services, a portion of surplus revenue received from oil exports will be allocated to increase the working capital of export Development Bank.
- (viii) To formulate export strategies and determine the facilities to be extended to export sector, the High Council of non-oil export promotion will be established under the chairmanship of the President.¹

¹ Economic Trends, Central Bank of the Islamic Republic of Iran Publication, third Quarter, 2002/2003, P. 27

The condition of Iranian economy after the Islamic revolution (1979) turned to be deteriorating rising inflation, foreign indebtedness and economic institutions that badly needed fundamental reform. After coming to power in the early 1990s one of the basic objectives of President Ali Akbar Hashemi Rafsanjani's economic reform policy was the reconstruction of the Iranian economy. The first five years plan (1990 to 1994-95) provided an important framework within which the Government could engage on a programme of structural reform and economic liberalization. In 1991, Iran also took steps towards reforming its economy and liberalizing trade.¹ In fact, all these became part of a strategy that included the reformation of the foreign exchange system, monetary policy and fiscal policy and other measures related to liberalizing trade.²

The economic liberalization policies were particularly aimed at reintroducing Iran into the world's economy while placing greater emphasis on market based policies. In fact, till the beginning of the 1990s around 60 percent of Iran's annual budget was spent on state owned or afflicted companies. Rafsanjani's Government wanted to reduce this burden by limiting their access to deficit finance and in some cases privatization. However, it was noted that Iran's massive petrochemical expansion plans are dependent on the willingness of western banks to provide project finance. In

¹ Kareshaneas, Massoud and Hashemi, Persah, "Economic Reform and Reconstruction of the Iranian Economy", *Middle East Journal*, 49 (1) Washington, winter 1995, PP. 89-111.

² Amuzegar, Jahangir, "The Iranian Economy Before and After the Revolution", *Middle East Journal* 49 (3), Washington, Summer 1992, PP. 413-425

March 1992, the country's supreme Council for Investment decided to abolish a regulation, which prevented foreigners from owning more than 49 percent of local business enterprises. This move opened the way for foreign investment in Iran's energy and heavy industries and made it easier for the country's to access foreign technical expertise.¹

The Government adopted the policy of denationalizing state owned companies and assets, while seeking foreign capital and technology wherever they were found, without setting development strategies as a clear long term goal in mind. During 1991, 20 billion rials were transferred to the private sector and the stock of 68 companies was introduced to the stock market to be sold to the private sector as well. This increasing move towards privatization of the economy and Government encourage the foreign investment in the economy. Despite the ideological differences, a number of developed countries in western world took the opportunities of liberalization. For example, Germany and Canada have invested more than \$ 400 million in establishing an industrial complex for wood products and paper mills. Japan is investing \$ 1.74 billion in oil exploration. British and French companies are building automobile factories in Iran. The Iranian Government has also re-instituted the pre-revolutionary law of promotion and protection of foreign investment, which allows foreign investors to own up to 100 percent of business. It has also decided to flatten the Iranian

¹ *Middle East Economic Survey*, , 11 May 1992, P B5

real exchange rate in order to encourage export and foreign investment.¹

The target economic growth in current five-year plan is 6 percent a year; the creation of 7,50,000 more jobs a year and the reduction of food subsidies. It contains a variety of policies designed to restructure the economy including liberalization and partial privatization of sections of the upstream hydro-carbon sector, the communications industry and the petrochemical sector. However, because of political and religious opposition, it is unlikely substantial progress can be made before 2005. Although foreign companies are permitted to operate in special off shore Free Trade Zones (FTZs), they remain subject to nationalization under the current constitution. An attempt to remove the nationalization clauses was made at the end of 1999 but was blocked by the council of Guardians. The retention of such clauses does not make confidence in foreign investors. The three FTZs Chahbahar, Kish and Qeshm have had some success in attracting foreign investment but not as much as previously hoped for. According to the FTZ supreme council, \$1.2 billion was invested in them between 1993–98, other efforts at economic reforms have had mixed success. A bill currently place for debated by the pro-reform Majlis would allow President Khatami to punish judges that block foreign investment in an unconstitutional manner and curtail the role of the council of Guardian in the electoral process. However,

¹ Cyrus, Vakili –Zad, “Conflict Among the Ruling Revolutionary Elite in Iran”, *Middle Eastern Studies*, 30 (3), London, July 1992, PP. 618 –31

because of the latter proposal it is unlikely to be accepted by the council. President Khatami is strong supporter of reform and he said, if the reform process fail he will stand down. Iran wants to join the world trade organization but WTO rejects their application because WTO would probably require further economic reform. In particular, the Government must implement its plan to fuse the official and floating exchange rates. In May 2002, two European investment bank, BPN Paribas of France and German comers bank, agreed to assist Iran gain access to international capital markets through the country's first Euro bond issue since 1979. While the Government has battled for several years to regain access to the markets, conservatives within Iran an unhappy than interest will be paid on the loan in conflict with Islamic banking principles. The USA continues to block World Bank loans to Iran. The chances of USA firms investing in Iran in the near future were hit by the renewal of the Iran-Libya sanctions Act (ILSA) in 2001 for five more years. USA wants to prevent USA companies from investing more than \$20 million in either of the countries previously this limit was \$40 million. Higher oil revenues are required to finance the Government plan for economic diversification and to fund its social investment plans. Both sides of the political spectrum agreed oil production must rise in order to boost Government revenues and recognize that the state owned oil companies; the National Iranian Oil Company (NIOC) is unable to pursue exploration work on its own as rapidly as desired. As a result, the oil and gas sector

has been made something of an exception in terms of the amount of influence exerted by foreign companies the Government has found several ways around the constitutional restrictions placed on foreign companies in developing the country's oil and gas resources with massive oil reserves and a Government open to investment foreign companies find hydro-carbon sector an attractive proposition.¹

¹ Ford, Neil, "A Difficult Birth, the Liberalization of the Iranian Economy", *Middle East*, No. 329, Washington, 2002, winter, PP. 48 –51

Chapter -4

INDIA'S TRADE RELATIONS WITH IRAN

Historical review of the theoretical background or framework of Trade between India and Iran: -

Iran had closest historical ties with India since the days when Aryans moving southwards via Iran became masters of 'Aryavarts'. Thus, the Indian people have been related to the people of Iran in their origin and culture more closely than with any other people in the world. However, with the exception to the British era, when the Indian people were deliberately distanced from their neighbours, there was always an uninterrupted relationship between Iran and India, which goes far back into the past.

By spreading from Iran to India Islam provided one more link between the two societies. Iran is largely Shia. India too came to have a sizable Shia population among its Muslims. Islamic factor was a significant channel for cultural interchange between the two nations.

The evidence of the common civilization of the two countries was provided, during the excavation in the valley of Sind and discovered very old civilization in this area which dates back to 2500 BC.

India has contributed its medical personnel to Iran in all ages. During the reign of Shahpur, the Great (310-379 AD) India physicians were invited to practice medicine along with Greek and Iranian physicians in Gundishpur Hospital in the Southern Khuzistan province of Iran. The same Gundishpur Hospital is functioning in modern times and a few

Indian medicos are serving in it along with doctors from the west and Iran. Perhaps, continuing a 1700 years old tradition.

There was a lot of building activity under the Mughals. Architects and Artisans were brought from Iran to design and construct palaces, forts, mosques, tombs and public buildings. Some of the buildings constructed in this period are the finest examples of the Indo-Iranian synthesis in architecture. Fatehpur Sikri, Humayun's tomb and Taj Mahal represent this synthesis.

British used their warships in the Indian Ocean to prevent direct trade between India and Persia as well as between china and the Indies, for east and Red Sea. In order to strengthen the monopoly trade of the British, duties on Indian export goods were increased. Simultaneously, import duties on goods from England were decreased. The imposition of high duties on export from Indian goods started losing market not only in Persian and England, but in Africa too, after this Persia was turned into a ground for exploitation by British commerce and finance. The British imperialists looked to India as a precious jewel in their crown. To secure it, they extended control over all the neighboring countries of India. Some of them lost their freedom so that the British Indian Empire could be secured. Iran retained its freedom but come within the sphere of British influence.¹.

¹ Jafri, Adul Amir, "Iran and India: Age old friendship", *India Quarterly*, Vol. 50(2-3), India Council of World Affairs Publication, New Delhi, Oct-Dec. 1994, PP. 65-90.

Indo-Iranian relations since 1947 are qualitatively different from the earlier phases but times of the traditional past do persist. During this period, bilateral relationship has to be assessed in the context of an altogether new and complex international relations system, which emerged in the wake of the Second World War. In the fresh milieu geography, strategic location, natural resource, economy acquired new significance and other variables ideological competition, interdependence, cold war and version and perception of political leaders also become determinants of interstate relations. All these factors, along with certain indigenous issues, affected the relations between India and Iran.

India got independence in 1947 but at the cost of partition and the emergence of the new state of Pakistan. The independent India lost its age-old territorial contiguity with Iran. India's loss was the inheritance by Pakistan of about 590 miles of common border with Iran. Since then Pakistan emerged not merely geographically between India and Iran but it also has stood as one of the determining factors in Indo-Iranian relations.¹

When India and Pakistan became independent in August 1947, Iran was considerable sympathy for Pakistan in the press and among the people, the Governments attitude was determined by geographical, political, and strategic and security consideration. Consequently, it seems true that

¹ Abidi, A.H.H., "Relations between India and Iran 1947-1979", *The Iranian Journal of International Affairs*, Vol. VII, No. 4, Tehran, winter 1997, P. 878

apparently, Iran appeared better disposed towards Pakistan. This was evident in the facts that Iran was the first country that extended recognitions to the state of Pakistan, that it established diplomatic relationship with that state by May 1948 that Prime Minister Liaqat Ali Khan visited Iran in May 1949, that the Shah was the first head of State to pay a state visit to Pakistan in March 1950, and that a treaty of friendship was signed between Iran and Pakistan in the same month.

These facts assume particular importance when viewed from New Delhi in the midst of murky relations between India and Pakistan and compared with the state of relations between India and Iran. On this tyrant it may be observed that, at least for 19 months since 15th August 1947, the relationship between these two countries appeared to be in the grey area although one knows about the signing of an Air Transport Agreement in November 1948 and the visit of an Iranian economic mission to India in December 1949 in order to explore the prospects of bilateral trade. The ground for the modern relation between India and Iran was provided only after India's independence when the first ever treaty of commerce and navigation was signed between them in 1954. It was the basis of all other agreements, which were later, signed in 1961, 1963 and 1968. A notable watermark in politico-economic relations between India and Iran was achieved, particularly when the shah of Iran paid his second

12-day visit to India in January 1964.¹ This year an Indo-Iran joint commission was formed.

Indo-Iranian economic cooperation received a major boost with the decision in January 1969, during the Shah's visit to New Delhi to establish an Indo-Iran joint commission for economic trade and technical cooperation. It was no wonder, therefore, that in 1968-69 Indo-Iranian Trade more than doubled as compared to the position in the previous year. Indian exports to Iran went up from Rs. 102 million in 1967-68 to Rs. 214.6 million in 1968-69. Imports from Iran went up during the same period from Rs. 388.9 million to Rs. 863.7 million. Since approximately 90 percent of Iran's exports to India consisted of petroleum and petro-products, Iran's oil exports to India in same period went up from Rs 310.4 million to Rs. 842.2 million. This meant both increasing Indian dependence on Iran for its energy needs, as well as increased Iranian capacity to buy Indian products and invest in joint enterprises in India.²

However, this increase in the trade turnover between India and Iran did not find adequate reflection in other spheres of Indo-Iranian interaction well into the 1970s. In fact, there intervened a period between 1971 and 1973. When Indo-Iranian relations could be distinctly characterized as 'chilly'. Some times political conflicts among different countries take the form of war and seriously jeopardize

¹ *Ibid.*, PP. 880-881

² Ayooob Mohammad, "Indo-Iranian Relations: Strategic Political and Economic Dimensions". *India Quarterly*, Vol. XXXIII, No. 01. Indian Council of World Affairs Publication, Jan.-March 1977, PP. 1-2

economic cooperation among them. The 1971 war with Pakistan made our relation in with Iran rather low. But in 1974 as a result of exchange of leaders of both the countries these relations took a dramatic upturn and a number of commercial and collaboration agreements were signed. After the 1973 oil revenue boom in the OPEC countries Iran was one of the countries, which made the most of the international oil boom. As a result of huge accumulation of foreign exchange the Iranian Government tried to utilize these resources in the best possible manner and tried to make Iran self-reliant through the diversification of the economy.¹

During the 1970s the visit of leading statesman to each others country established the economic bond and promoted political understanding, Indian Minister of External Affairs, Sardar Swaran Singh visited Iran in July 1973, while Iranian foreign Minister Abbas Ali Khalatbary come to India in December 1973. A meeting of joint commission of the two countries was held in New Delhi in July 1973 and continued in Tehran in February 1974. Prime Minister Indira Gandhi and Sardar Swaran Singh paid an official visit to Iran in April-May 1974. During which discussion were held on matters of international significance, mutual interest and bilateral cooperation. In 1973, also there were a number of visits. The Minister for External Affairs visited Iran in November 1975 to attend the fifth meeting of the Indo-Iran joint commission for trade, economic and technical

¹ Iqbal, M., "India in West Asia" *Export West Asian*, Vo. III, No. 11 -12, New Delhi, Nov.-Dec. 1978, PP. 9-16

collaboration. A significant outcome of this visit was the finalization of the \$ 630 million agreement for the exploitation of Kundermukh Iron ore project, which was the land mark in the development of Indo-Iran relations. For the rest of the 1970s these visits from both sides continued. Other important visit included Prime Minister Morarji Desai's visit to Iran in June 1977 and from Iran, the Shah and Shahbano's visit to India in February 1978. These high level visits concentrated on matters of common interests and multifaceted economic cooperation.¹

From the Iranian side, India appeared an equally attractive economic proposition. Because of its developed industrial infra-structure India's capacity to provide Iran cheaply with the goods it needed to accelerate the pace of industrialization, Iran was interested in broadening and deepening its economic contacts with India. Iranian capacity to absorb Indian exports to India 1974-75 were less than double its exports in the previous year (1973-74) and a substantial part of this increase could be explained by the rise in oil prices, Indian exports to Iran increased five fold during the same period. By 1975-76, it was reported that New Delhi had emerged as Iran's sixth largest trading partner, ahead even of France and Italy. According to a study of Indo-Iranian economic transaction flows, traditionally Iran had supplied to India oil and petroleum products in return for minerals, jute, tea and technicians. India has also providing

¹ Naaz, Dr. Farah, "Indo-Iranian Relations 1947 -2000", *Strategic Analysis*, Vol. XXIV, No. 10, The Institute for Defense Studies and Analysis Publication. New Delhi, January 2001, PP. 1918-1919

iron ore, aluminum, steel, cement, transmission tower and power generating units. There are fertilizers, phosphoric acid, ammonia, sculpture and copper imported from Iran in larger quantities. Apart from that power transmission equipment, rubber products and synthetic material was another important item which were imported from Iran during late 70s.

During the height of the economic collaborations between the two countries, there started a turmoil in Iran against the Shah due to his certain policies which Iranian people did not like the uprising in Iran started to increase and it resulted in the exile of the Shah and formation of a new revolutionary Government in Iran in 1979 under the leadership of a great religious leader Ayatollah Khomeini. After the revolution of whole administrative and economic set up of the country was changed and the agreements and protocols which were signed by the previous Government with different countries were cancelled and the development programme of the country which was going on with the help of U.S.A., Europe and Japan was disturbed. In these circumstances, India lost a substantial part of his trade with Iran and India's part of his trade with Iran and India's joint ventures and project export in Iran. Amidst all these developments and confusions about India's future policies and when the country even could not get stability after the revolution, the bloody internecine war between Iraq and Iran started in September 1980 that continued up to August 1988. The war put a severe test to Indian diplomacy towards Iran

and Iraq. Mostly economic considerations had strained India's response to the war. Before the war, India used to receive 70 percent of her total oil imports from Iran and Iraq but due to war India suffered a great loss in terms higher oil prices and her reduced exports to these countries. However, during the war period also, India managed to regain the previous position in Iranian market and tried her best to maintain the tempo of exports and India supplied a number of traditional and engineering goods to Iran, though the trade of Iran as a whole had declined, considering due to the shortage of fund.

India was one of the first countries which sent an official delegation to Iran soon after the victory of the Islamic Revolution.

In 1983, a new Indo-Iran joint commission was formed this was followed by a 15 member delegation of the Federation of Indian Export Organization FIEO visited Iran to explore the potential for capturing the big Iranian market. Later in 1987, a joint commission between India and Iran agreed to expand their industrial cooperation in small scale industries. Cement plants, textile machinery, automotive sector, road construction and the foundry and steel sector.¹

In 1987, the official visit of Dr. Ali Akbar Vilayati in India to attend the Indo-Iranian joint commission meeting. The external affairs minister Narayan Datt Tiwari attends the joint commission from Indian side. Both the ministers

¹ Khan, Javed Ahmad, *India and West Asia*, Saga Publication, New Delhi, 1999, PP. 182 -183

expressed the view that it would be more useful to pick up specific projects for economic cooperation and transfer of technology particularly in such areas as cement and textiles. During the visit, Dr. Vilayati had thirty minute meeting with the Prime Minister, Mr. Rajiv Gandhi discussed on international issues of mutual concern. Dr. Vilayati reiterated Iran's policy of being "neither East nor West" which he said was based on mutual respect for the territorial integrity of other countries. He said the Government and people of Iran regarded India as one of the influential members of the non-aligned movement. Iran attached greatest significance to its relation with India.¹

New Government established after the Islamic Revolution a devastating war was imposed upon Iran. Iran and the Ahwaz steel complex where the Iran pellets from the Kudermukh were going to be used was heavily bombarded Iran. Thus, was unable to lift the iron ore from India. But in the first week of August 1988 the secretary in the Ministry of Finance of India Mr. Gopi Arora, visited Iran and an agreement was signed through which all long standing issues pertaining to Kudermukh were solved to the mutual satisfactory of both Iran and India.²

In the same year another important memorandum of understanding was signed in New Delhi between Mr. Naresh Dayal, joint secretary in the Ministry of External Affairs of India and Mr. Ebrahim Rahimpour, the Iranian ambassador in

¹ "India, Iran Discusses Trade Technology Transfer", *The Economic Times*, New Delhi, February 20th, 1987, P. 8

² *The Economic Times*, New Delhi, May 9th, 1992, P. 7

which the two countries agreed to clear diplomatic official and business visas in three or four weeks. Iran also made commitment to renew resident visas and work permits for Indian working in Iran. One year visas will be issued to Indian school teacher working in Iran.¹

However, during the war period, few Indian delegations visited Iran but their visits could not bring any significant break through in the economic relations between Indian and Iran.

The relation between India and Iran became important during 1990s because Iran needed technical help for their reconstruction which was destroyed in long war with Iraq. Simultaneously India was looking for new market after the collapse of the USSR.

In the year 1991, Indian petrochemical cooperation Ltd. (IPCL) came forward to enhance the relation between Indian and Iran and won the \$ 4.4 million contract to train personnel of the Iranian national petroleum company (NPC) to develop their petrochemical industry. The visit of petrochemical secretary M.S.Gill and IPCL chairman, Mr. Hasmukh shah to Iran in February in the same year. During the visit, a memorandum of understanding was signed for cooperation in the field of petrochemicals between Iran and India, particularly in plant operations research and development, bilateral trade, joint ventures, information exchange and regional cooperation.²

¹ *The Patriot*, New Delhi, February 20th, 1992, P. 8

² "IPCL, bag \$ 4.4 billion project in Iran", *The Business and Political Observer*, New Delhi, August 2nd, 1991.

In the month of October 1991, a Bronferde, deputy foreign minister of Iran has told the confederation of engineering industry that while Iran was looking towards the west for technology help. It needed investment from developing countries like India. There was tremendous scope for export of key projects which could result in substantial foreign exchange earnings for India. Iran offered scope not only for supply of original equipments but also supply of spare parts and component. From the Indian side Mr. Ajit Gulabchand, chairman of CEI, west Asia committee said that in the past war reconstruction period India had considerable opportunities in construction projects, modernization plants in Iran. A number of Indian companies were working in Iran. But cooperation must increase manifold. More trade delegations from India and Iran should be sent.¹

An important visit of Indian foreign secretary Mr. Dixit to Iran in July 1992. During his visit Iranian President Akbar Hashemi Rafsanjani welcomed the expansion of mutual cooperation between the two countries in various fields, particularly railways and energy. Mr. Dixit handed over a message from the Indian Prime Minister P.V. Narasimha Rao to Iranian President Rafsanjani, Mr. Dixit said India attached great importance to expanding ties with the Islamic republic and that effective steps had been taken in this regard since the convening of the joint economic commission.²

¹ "Scope for Exports to Iran", *The Statesman*, New Delhi, October 7th, 1991, P. 6

² "Indo-Iranian Cooperation being Expanded", *The Times of India*, New Delhi, July 10th, 1992, P. 7

The Indian Trade Promotion Organization (ITPO) participated in Tehran international fair which was held in October 1992. ITPO displayed traditional and non-traditional goods which had market potential in Iran. The item exhibited included machine and hand tools automobiles and their spare parts, farm machinery and the implements electronic motors, ball bearings, fuel injection equipment chemicals and pharmaceuticals, food products, herbal cosmetics as well as sugar and cement plants. The major traditional items tea, leather goods, agro-products, tobacco and cigarette was also displayed in fair. These items were represented by over 50 leading manufactures and exporters both in the public and private sector.¹

In November 1992, the memorandum of standing was signed on the conclusion of the 6th session of the Indo-Iranian joint commission between Minister of state for external affairs R.L. Bhatia and his Iranian counterpart Ali-Akbar Velayati. In the three day discussion, India won projects worth \$ 1 billion in Iran and also five areas took the Indo-Iranian cooperation at a qualitatively higher level. There were also the five committees formed for discussions were industry trade, cultural counselor information, science and technology cooperation, agriculture and rural development transportation and communication. During the discussion an important decision had been taken that a team of experts would visit Iran to work out the modalities of a trade transit

¹ "Tehran fair to help boost Indian Exports", *The Economic Times*, New Delhi, October 29th, 1992, P. 7

route via Iran to the Central Asian Republics. There was another important achievement won to Indian thermal power by setting up a major thermal power project in Kerman which were cost about \$ 700 million and have a capacity of 810 MW. This order is to be extended by BHEL.¹

Indian Prime Minister P.V. Narasimha Rao visited Iran in September 1993 and his visit culminated in strengthening bilateral relations between the two countries. This was the first visit by any Indian Prime Minister to Iran since the historic Islamic Revolution 14 year ago. The three day visit was also the most controversial of all the foreign policy initiatives of the 27 month old Rao Government.

A red carpet was unrolled for Mr. Rao as he arrived at the Mehrabad international Airport. The visiting premier was warmly received by President Rafsanjani, the Iranian foreign Minister Dr. Velayati, Cabinet Ministers and the Indian ambassador, Mr. S.K. Arora. The high level delegation led by the Prime Minister includes the Minister of State for External Affairs, Mr. R.L. Bhatia, the Prime Minister Principal Secretary Mr. A.N. Verma and the foreign secretary Mr. Dixit. During the meeting with Iranian President, the Indian Prime Minister impressed upon the Iranian leader that India's engineering and technological expertise could be made available for the Iranian oil and natural gas sector, besides other sphere. Both Mr. Rao and Mr. Rafsanjani agreed that the potential for economic cooperation between the two

¹ "India, Iran sign MoU to boost ties", *The Business and Political Observer*, New Delhi, November 12th, 1992, P. 5

countries was tremendous and could be fruit fully utilized for mutual benefit.¹

During the visit of high level delegation led by Indian Prime Minister P.V. Narasimha Rao a memorandum of standing was signed, on enhancing bilateral cooperation in surface transport, transit facilities and science and technology. Under which the cooperation in area like metallurgy, oil and petroleum, biotechnology, electronics, computer, communications and energy. This also includes scientific research in these areas. The two sides agreed to explore the possibilities of setting up bilateral scientific and technological research centers in leading scientific areas. The both sides also agreed to collaborate in projects such as developing and constructing ports, roads, railroads, air links and such infrastructure to develop economic and commercial links with the central Asian region. IRCON and RITES are already involved in some railways works including \$ 42 million contract for the Ahwaz Bander elman signaling project.²

In October 1993, the Iranian ambassador Mr. Ali Reza Skeilk Attar, at a meeting with industrialist belonging to the Associated Chambers of Commerce and Industry of India (ASSOCHAM) has invited the Indian industry to participate in joint venture in the areas of petrochemicals and refineries and in Iran's close economic cooperation with the Central

¹ "PM's Call to Enhance Ties with Iran", *Times of India*, New Delhi, September 21st, 1993, P. 1

² "India to Help in Construction", *The Hindustan Times*, New Delhi, September 26th, 1993, P. 7

Asian republics of the former Soviet Union was also an incentive for the Indian industry to look for setting.

Iran is one of the major Persian Gulf oil exporters, whose oil exports are totally dependent on the security of the Persian Gulf. This explains Iran's stand with respect to securing oil tanker movements, during the most troubled periods of the Iran-Iraq war (1980-88) and the second Persian Gulf War of 1991. With regard to the fact that Iranian expertise in the oil industry is the highest in the Persian Gulf region, Iran's technical assistance to major producer in the region can be most beneficial due to its relatively low labour costs. Iran has always proved to be available in providing technical assistance in emergencies a most recent example is extinguishing Kuwait's oil well fires and clearing pollution in the Persian Gulf.

With the collapse of the former Soviet Union the oil and gas rich Caspian region has attracted the interest of the world's oil and gas industry. Considering the long historical and cultural ties between Iran and the countries of the Caspian Sea region Iranian foreign policy towards these countries has been based on mutual economic and cultural interests. Iran is vital to the development of their economics because Iran is the best foreign trade route for their oil and gas pipeline to Europe and the Far East. Iran's infrastructure, including refineries, existing pipeline networks, export terminals as well as oil industry expertise and manpower can provide the best opportunity for developing their oil and gas

industries and ensuring their sustainable economic growth and stability.¹

In April 1995, India, Iran and Turkmenistan signed an important memorandum that will provide road and rail access to Indian goods to Central Asia through Iran and vice-versa. The transit route through Iran gave an impetus to improving trade and economic ties among India, Iran and Central Asia and increases the flow traffic. Central Asia is still considered an untapped market and it has been looking for partners for its economic development. The provision of the memorandum provides for the international carriage of goods by road and rail from Central Asia to Iran and through it to India in vehicles registered in any of the three countries. It envisages the movement of Indian goods from Bombay and other parts to Bandarg Abbas port in Iran from where it will be transported through surface transport to the border city of Sarakhs and it is already linked to all the Central Asian republics by the rail network land during the Soviet Union days.²

President Ali Akbar Hashmi Rafsanjani of Iran paid a state visit to India in April 1995. President Rafsanjani was accompanied by a high powered 100 member delegation and held useful discussion with Prime Minister P.V. Narasimha Rao on matters of mutual interest. Mr. Rafsanjani the first Iranian President to visit India since the 1979 Islamic

¹ Hassuni, Syed Mehdi, "The Strategic Significance of Iran's Oil and Gas output in the Twenty first Century", *Middle East Economic Survey*, 35 (50), September 11th, 1995, P. D 5-7,

² "India, Iran and Turkmenistan sign MoU on Transit Facilities", *Times of India*, New Delhi, April 19th, 1995, P. 9

Revolution. The joint statement issued at the end of President Rafsanjani three day visit said, the two leaders were convinced that through sincere and sustained dialogue, all outstanding differences and issues in the region can be peacefully resolved. Both India and Iran have agreed to strengthen their cooperation for safeguarding the interests of developing countries in areas involving peace and development. They will work together in international forums including the UN, G77 and Non-aligned group. Both countries have stressed importance of working together in further enhancing mutually beneficial trade and have agreed to expand cooperation in areas of human resources development. The two countries also signed a cultural exchange programme envisaging increased cooperation in Art, Culture, Sports and Mass Media.¹

President Rafsanjani of Iran visited India in April 1995 and a wide range of discussions took place. During his visit, he emphasized the need for strategic cooperation to ward off outside interference and domination in the south Asian and Gulf region. He also underlined the significance of cooperation among Iran, Pakistan, India and China to forest all any pretext by foreign forces to interfere in the region.²

Velayati visited India in January 1996, Indian vice-President K.R. Narayanan visited Iran in October 1996 and Iranian Majlis speaker Nateq Mouri visited India in

¹ Singh, Darshah, "Appraisal of Iran's President Rafsanjani visit to India in April 1995". *India Quarterly*, 51(2-3), Indian Council of World Affairs, New Delhi, April-September 1995

² Annual Report 1996-97, MEA, Government of India, New Delhi, 1997, PP. 42-43

November 1996. These continuous visits from both sides had boosted the economic relation between these countries and number of agreements were signed. Apart from that, during the visit of Iranian Majlis speaker in November 1996, an agreement on the formation of a joint Business Council (JBC) was signed.¹

In the month of April 1996, a four man economic delegation from India held talks with Iranian industrialists for cooperation in the electrical industry. India has made considerable progress in the field of power generation up to 1996 generating some 80000 MW of power, while in 1947 it was just 1300 MW.²

In February 1997, India, Iran and Turkmenistan signed an agreement to facilitate transit of goods among the three nations. Turkmenistan foreign Minister pointed that from now on goods will be reaching two weeks earlier than the normal time it takes these days. The route will be from India to Bandar Abbas and from there via train to Tehran and then to Turkmenistan. It is also believed that once goods reach Turkmenistan they will further go down to other Central Asia republics. Iran and India also give their final approval to the proposed 350 million dollar joint venture fertilizer project to be set up in Iranian Qeshm Island free trade zone.³

¹ Naaz, Dr. Farah, "Indo-Iranian Relations 1947-2000", *Strategic Analysis*, Vol. XXIV, No. 10, The Institute for Defense Studies and Analysis Publication, New Delhi, January 2001, PP. 1922

² Khan, Javed Ahmad, *Op.Cit.*, P. 175

³ "India, Iran, Turkmenistan sign Agreement", *The Hindustan Times*, New Delhi, February 23rd, 1997, P. 15

The Indian External Affairs Minister I.K. Gujral attended the ninth session of the joint commission in February 1997. During the meeting has mooted setting up of an indo-Iranian joint venture bank and twin agreements on double taxation avoidance and investment promotion and protection and also included the possibilities of joint ventures hospitals in Iran besides settings up joint ventures to manufacture bulk drugs and medical instruments the bilateral trade was reaching the mark of more than \$ 1 billion dollar, he said adding that through a significant position of trade (around 50 percent) was on account of India's oil purchasing, yet trade organizations on both sides were showing a growing awareness of the potential markets in both countries.¹

Composition of trade between India and Iran: -

The India's historical ties with Iran are as old as the Indian civilization. India's relations with Iran began when Aryan were moving southwards via Iran before they became the masters of the "Aryavart". Thus the Indian people have been related to the people of Iran in their origin and culture more closely than with any other people in the world. However, with the exception to the British era, when the Indian people were deliberately distanced from their neighbours, there was always uninterrupted relationship between Iran and India, which goes back into the past.

¹ "Indo-Iranian JT Ventures Bank Mooted", *The Hindustan Times*, New Delhi, February 25th, 1997, P. 17

COMPOSITION OF INDIA'S EXPORT COMMODITIES TO IRAN

Table: 4.1

(US \$ Million)

Commodities	1996-97 AT/SP	1997-98 AT/SP	1998-99 AT/SP	1999-00 AT/SP	2000-01 AT/SP	2001-02 AT/SP	2002-03 AT/SP	Average AT/SP	Compound growth rate
Processed Minerals	6.52/ 3.34	5.79/ 3.36	0.22/ 0.14	0.04/ 0.02	5.72/ 2.58	12.64/ 4.97	52.06/ 7.92	11.85/ 3.19	41.376
Machinery & Instruments	19.07/ 9.77	12.41/ 7.22	9.25/ 6.0	8.42/ 5.53	17.55/ 7.33	30.14/ 11.87	25.84/ 3.93	17.52/ 7.46	5.193
Primary & semi finished iron & steel	0.15/ .076	1.33/ 0.77	1.42/ 0.92	0.84/ 0.55	28.87/ 13.05	38.65/ 15.22	23.75/ 3.61	13.57/ 4.88	132.592
Inorg./org./agro chemicals	10.75/ 5.50	7.67/ 4.46	7.63/ 4.95	11.69/ 7.67	17.28/ 7.81	10.81/ 4.25	23.05/ 3.61	12.69/ 5.38	13.556
Drugs, Pharma. & fine chemicals	26.50/ 13.57	28.23/ 16.42	17.17/ 11.14	33.50/ 22.00	30.0/ 13.56	26.88/ 10.58	22.54/ 3.34	26.40/ 12.95	-2.661
Manufacture of metals	11.32/ 5.80	17.21/ 10.01	3.06/ 1.98	3.90/ 2.56	15.79/ 7.13	13.42/ 5.28	19.16/ 2.91	11.98/ 5.00	9.167
Rubber & manufactured products	4.27/ 2.18	6.25/ 3.63	2.47/ 1.60	5.79/ 3.80	16.97/ 7.67	13.65/ 5.37	18.08/ 2.75	9.46/ 3.85	27.192
Paper wood products	0.62/ 0.31	0.92/ 0.53	0.80/ 0.51	2.58/ 1.68	4.69/ 2.12	4.46/ 1.75	14.06/ 2.13	4.01/ 1.29	68.241
Manmade yarn fabric made-up	1.29/ 0.66	2.46/ 1.43	1.75/ 1.135	4.59/ 3.01	7.33/ 3.31	9.32/ 3.67	10.23/ 1.55	5.28/ 2.10	41.215
Transport equipments	5.26/ 2.69	5.53/ 3.21	8.09/ 5.25	4.98/ 3.27	4.44/ 2.00	9.07/ 3.57	7.34/ 1.11	6.38/ 3.01	5.710
Meat & preparations	7.88/ 4.03	10.31/ 5.99	13.69/ 8.88	7.73/ 5.07	12.83/ 5.80	11.08/ 4.36	6.65/ 1.01	10.02/ 5.02	-2.788
Tea	7.24/ 3.71	4.36/ 2.53	12.95/ 8.40	4.15/ 2.72	11.66/ 5.27	8.30/ 3.26	2.31/ 0.35	7.28/ 3.74	-17.336
Iron ore	24.56/ 12.58	30.49/ 17.74	15.28/ 9.91	25.04/ 16.44	9.91/ 4.48	11.63/ 4.58	1.91/ 0.29	16.97/ 9.43	-34.666
All commodities	195.14	171.86	154.08	152.22	221.96	253.89	657.03	257.91	22.425

Source: Foreign Trade and Balance of Payments, Center for Monitoring Indian Economy report, 2003, Published by Ministry of Commerce, N. D.

Note: - AT - Absolute Term, SP - Percentage share in total Export.

After the victory of the Islamic Revolution in Iran, India was one of those countries that recognized the Iranian Government and sent an official delegation. Today's world of high capital mobility integrates national asset markets and transforms long run supply relationships in factor and product markets. In this era of globalization, therefore economic causes provide an important base to the relationship between India and Iran.

While discussing the India's economic relations with Iran, we shall analyze the India's trade relations with Iran. Firstly we highlight the India's exports to Iran and then import from Iran will be taken into account. The following table gives an account of the composition of Indian exports.

The value of the exports is given in terms of US million dollars. We have enlisted thirteen major items which are exported to Iran for the present study. In the fiscal year of 1996-97 only three commodities have accounted more than 35 percent of the total exports. These items are machinery and instruments (19.02 million US dollars), drugs pharm and fine chemicals (26.5 million US dollars) and iron ore (24.56 million US dollars). Besides these three items the others that have a sizable amount are organic and inorganic chemicals and manufactures of metals. But after six years, the composition of major commodities of Indian exports has changed. Now, there are five commodities that dominate the India's exports to Iran. These are machinery and instruments primary and semi finished iron and steel, organic and

inorganic chemicals, drugs pharm and five chemicals and processed minerals.

If we take the India's export performance by commodity, the export of processed minerals has recorded the highest growth rate. The total export value of this item was 6.52 million US dollars during the fiscal year of 1996–97. But after this its exports to Iran has declined for three consecutive years and touches a lowest of 0.04 million US dollars in the year 1999–2000. In the year 2000–01 its total exports value rose to 5.72 million US dollars but still remained lower than the export value of 1996–97. In the next year the total earning from the exports of processed minerals became 12.64 million US dollars and thus registered a growth rate of 120.92 percent. In the next year its export performance is outstanding. In this year, India has accumulated 52.06 million US dollars from the export of processed mineral and lodged a growth rate of 311.86 percent. In this year processed minerals not only contributed a major part in India's export to Iran but also occupied the leading position in Indian exports.

Reserve to the performance of processed minerals, the performance of the export of iron ore has been very distressing. In 1996–97, this commodity occupied the second position in the terms of Indian exports to Iran. Indians received a sum of 24.56 million US dollars against the export of iron ore. Though, it has recorded and improvement in 1997–98 and got 30.49 million US dollars for exports to Iran, but in the next year it performed very poorly. From highest

contributor in 1997-98 in India's exports to Iran, it dragged to the position in the next year where a negative growth rate is registered but remained at the second place. Since 2000-01, Indian export of iron ore to Iran reduced drastically and come down to 1.9 million US dollars in year 2002-03 and became the lowest contributor in Indian exports to Iran.

The present table 4.1, reveals that India's exports of machinery and instruments to Iran in the year 1996-97 was 19.07 million US dollars and recorded at third place in terms of exports earnings. In the next year its exports value decreased by 6.66 million US dollars and slipped to fourth position. The declining process of exports earnings from machinery and instruments remained continued for the next two years and reached at 8.42 million US dollars in 1999-2000. During the fiscal year 2000-01, its negative exports growth got a break-through by collecting 17.55 million US dollars for its export to Iran but still it was less than the 1996-97. In the year 2001-02, it registered a growth rate of 71.73 percent and reached at its maximum amount during the period of our study by touching an export value of 50.14 million US dollars.

The export performance of primary and semi finished iron and steel has been very encouraging. In 1996-97, the exports earning from this item was lowest among the all enlisted commodities in the Table 4.1. But at the end of 2002-03, it got the third position. In 1996-97, the total exports earning from this commodity was only 0.15 million US dollars. In the next two years it has shown an

improvement and total exports value became 1.42 million US dollars during 1998-99. But in the next year its performance was very bad and in absolute term it managed to earn 0.84 million US dollars. In the next year, during 2000-01 it registered a significant growth in export earning. The export earning from this item grew by 3336.9 percent. In this way its status improved among other items and got the second place. The total earnings from this commodity further enhanced and became 38.65 million US dollars highest among all the commodities during 2001-02. Following the footsteps of machinery and instruments, the export value of primary and semi-finished iron and steel decreased to 23.75 million US dollars in 2002-03.

The Indian export of organic and inorganic chemical to Iran show a mixed term during 1996-97 to 2002-03. In the year 1996-97, it was at fifth number in terms of export earning. In this year the export value was equal to 10.75 million US dollars. During the year of 1997-98 and 1998-99 it has shown a declining trend. Once again in 1999-2000 its export to Iran got accelerated and registered a growth rate of 53.21 percent. In absolute term the total export earning from this commodity was 11.69 million US dollars for that year. The growth path of its exports remained continued in the next year and aggregated an earning of 17.28 million US dollars. Though in the fiscal year of 2001-02, the export earning from this product shirked to 10.81 million US dollars but in the next year it lodged a growth rate of 113.22 percent

and earned 23.75 million US dollars. On average it grew moderately at the rate of 24.60 percent per annum.

Drugs, pharm and fine chemicals are the commodities that have a strong share in the total exports to Iran. It had the highest share in the total export during 1996-97 by exporting a worth of equal to 26.5 million US dollars. India's drugs, pharm and fine chemical has always maintained a great potential in Iranian market. There is more or less the same amount of exports of this item to Iran except 1998-99. In this year, its economy was lowest, equal to 17.12 million US dollars. But in the next year it earned the highest share in the total Indian export to Iran. Only from the export of this commodity India aggregated 33.50 million US dollars. After this fiscal year the Iranian market has shown its rude concern towards shown a negative growth rate. In 2000-01 its exports value grew by -10.44 percent. Again in the next year the negative growth rate of the exports persisted and the total exports earnings decreased to 26.88 million US dollars. The process of decline in the total exports earning from drugs, pharm and fine chemicals advanced in the year of 2002-03. In this year the total amount of export is worth 22.54 million US dollars. In this way the average growth rate of exports of this item has been lowest among all the commodities.

Another item that has an important place in the India's exportable commodities to Iran is manufacture of metals. It was the fourth highest contributor in the total export earnings of India from Iran during 1996-97. The total export value of this commodity was 11.32 million US dollars in that

year. The export value of this item grew by 25.03 percent and became 17.21 million US dollars in absolute terms during 1997-98. But in 1998-99, the total exports earnings from this item became the lowest. After a long time, a respectable amount is received by the Indian Government from Iran for the export of manufacture of metals during 2002-03.

The other commodities that contribute a sizeable amount in India's export earnings from Iran are rubber manufacture products, transport equipments, paper wood products, manmade yarn fabric and tea. Among these items paper wood products has registered the highest average growth rate equal to 91.66 percent followed by rubber-manufactured products that has an average growth rate of 54.38 percent.

The table 4.2 depicts the composition of the India's imported commodity from Iran. We have selected eight important commodities that play a dominant role in determining the volume of Indian import from Iran. Out of these eight commodities, three important commodities are fruits and nuts, organic chemicals and inorganic chemicals. In 1996-97, their combined share in total imports was 15.75 percent. However, the items which have registered the highest growth rates are other than these three commodities. The highest growth rate is registered by pulses followed by art, resins and plastic materials etc. the next important commodity that has the third highest growth rate is non – ferrous metals.

COMPOSITION OF INDIA'S IMPORT FROM IRAN

Tble :4.2

Commodities	1996-97 AT/PS	1997-98 AT/PS	1998-99 AT/PS	1999-00 AT/PS	2000-01 AT/PS	2001-02 AT/PS	2002-03 AT/PS	Average AT/PS	Compound growth rate
Non-ferrous metals	0.35/ 0.03	5.73/ 0.9	15.81/ 3.33	27.91/ 2.22	32.94/ 15.60	42.56/ 14.94	45.40/ 17.54	20.4/ 7.79	124.99
Fruits and nuts	45.54/ 5.20	45.86/ 7.23	53.14/ 11.22	39.07/ 3.11	30.55/ 14.47	50.06/ 17.57	38.44/ 14.85	43.23/ 10.52	-2.785
Organic chemicals	49.94/ 5.7	45.8/ 7.22	26.42/ 5.57	26.56/ 2.12	35.47/ 16.8	33.79/ 11.86	32.82/ 12.68	35.82/ 8.85	-6.757
Inorganic chemicals	42.41/ 4.84	20.99/ 3.31	21.02/ 4.43	20.9/ 1.66	22.15/ 10.49	36.3/ 12.74	28.38/ 10.96	27.45/ 6.91	-6.475
Pulses	1.36/ 0.15	16.94/ 2.67	5.42/ 1.14	0.66/ 0.052	0.54/ 0.25	45.77/ 16.07	27.79/ 10.75	14.06/ 4.43	65.345
Sulphur and un-roasted iron pyrites	15.54/ 1.77	20.44/ 2.67	12.10/ 2.55	17.01/ 1.35	20.29/ 9.61	13.13/ 4.61	25.84/ 9.98	17.76/ 4.64	8.844
Artfel., resins. and plastic matrl. Etc.	5.36/ 0.61	4.89/ 0.77	1.56/ 0.32	1.25/ 0.09	0.13/ 0.061	0.05/ 0.017	3.40/ 1.31	2.37/ 0.45	-7.305
Metaliferous ores and metal scrap wool raw	13.15/ 1.50	1.71/ 0.26	1.02/ 0.21	6.74/ 0.53	9.30/ 4.40	10.71/ 3.76	2.93/ 1.13	6.5/ 1.68	-22.138
All commodities	875.16	633.79	473.61	1252.54	211.09	284.79	258.76	265.76	-18.379

(US \$ in million)

Source: - Foreign Trade & Balance of Payment, Centre for Monitoring Indian Economy Report 2003, Published by Ministry of Commerce, New Delhi

Note : - AT -- Absolute Terms, PS -- Percentage Shares in Total

The table showing the India's major importable commodities from Iran reveals that non-ferrous metal occupied an important place in Iranian export to India. In 1996-97, India imported non-ferrous metals from Iran equal to the value of 0.35 million US dollars. Since then its import in India increased tremendously and has ever equal increasing growth path. The total Iranian export of non-ferrous metal to India grew remarkably to 45.40 million US dollars in the fiscal year 2002-03 from a meager amount of 0.35 million US dollars in 1996-97. The share of non-ferrous metals in Iranian total exports to India in year 1996-97 was only 0.03 percent and it increased to 17.54 percent in year 2002-03. This type of trend shows the growing significance of non-ferrous metals in India's import from Iran representing its great potential in the Indian market.

From eatable commodities, fruits and nuts is another item of India's import from Iran. The table indicates that the import of these commodities have shown almost constant trend during the period of 1996-97 to 2002-03. In year 1996-97 Iran exported fruits and nuts to India equal to be amounted 45.54 million US dollars and it was increased to 53.14 million US dollars in year 1998-99 and registered a growth rate of 15.8 percent from the previous year. The Indian import of this commodity has shown a negative growth rate in years of 1999-2000 and 2000-01. From the Iranian point of view, in the fiscal year of 2001-02 has proved to be beneficial, when it exported fruits and nuts to India equal to the value of 50.06 million US dollars. Iran

once again failed to escape itself from the negative growth of its export earnings from fruits and nuts during 2002-03. In this year a negative growth of 23.4 percent is recorded in the total import value of this item in India by paying 38.44 million US dollars to Iran. Though in absolute terms the import of this item is decreased from 1996-97 to 2002-03 but as far as the share of this item in Iranian total export to India is concerned it has increased 14.85 percent in 2002-03 from 5.20 percent in year 1996-97.

An organic chemical holds the top position in the list of Iranian exportable commodities to India till 1997-98. The total export earnings of Iran from India by sale of organic chemicals were 49.94 million US dollars. In the year 1997-98, though the Indian import of this item has a negative growth, but its dominance on the top in terms of value remains intact by amounting 45.80 million US dollars. The next year has also witnessed the negative growth in total import of this item from Iran equal to 26.42 million US dollars. In the year of 2000-01, it brings some prosperity to Iran in the export of organic chemicals. The total export earnings increased to 35.47 million US dollars from 26.56 million US dollars in 1999-2000. Since 2000-01, the import value of organic chemicals of India has continuously decreased and reached to 32.82 million US dollars in 2002-03. The share of organic chemicals in the total exports of Iran to India was 5.7 percent in 1996-97 that increased to 12.68 percent in the year of 2002-03.

The import of inorganic chemicals has always occupied an important place in Indian import from Iran. The Indian import of inorganic chemicals from Iran in the year 1996-97 was worth of 42.41 million US dollars but it decreased to 20.99 million US dollars in 1997-98. An improvement can be observed in the import of inorganic chemical in India during 1998-99 when it accumulated 21.02 million US dollars. In the year 1999-2000, the import costs of inorganic chemicals become the lowest and reached to 20.90 million US dollars. Its import value became the second highest among the entire commodities import from Iran during the study period in the year of 2001-02 as the total import payment touches a figure of 36.30 million US dollars. But once again in the next year it lodged a negative growth and India managed to import the inorganic chemicals equal to the worth of 28.38 million US dollars.

Despite a mixed trend of negative and positive growth in the import of Indian pulses from Iran. The growth rate in the import of this commodity has been the highest among the all commodities. In the year 1996-97 India imported this commodity from Iran equal to the value of only 1.36 million US dollars. In the next year the import demand of this commodity increased remarkably and reached to 5.92 million US dollars, but in the year 2000-01 the total import value was ever lowest point and it shranked to 0.54 million US dollars. In the very next year, the import of this item was highest amount with a payment of 45.77 million US dollars and again the total import value of pulses reduced to 27.79

million US dollars in the year 2002-03. The share of pulses in total import of India from Iran was 0.15 percent in 1996-97 that increased to 16.07 percent in 2001-02 but again it fall down to 10.7 percent in 2002-03.

Iran export of Sulphur and unroasted pyrites to India in 1996-97 was 15.54 million US dollars and registered a growth of 31.53 percent in the next year costing 20.44 million US dollars to India. The downfall was occurred in the import of this item and it become to 17.01 million US dollars in the year 1999-2000. But in the next year, the total import value of this item grew by 19.28 percent and reached to a figure of 20.29 million US dollars. In the year 2001-02, again it showed down ward and reduced to 13.13 million US dollars. But the positive growth rate in the import of Sulphar and unroasted iron pyrites once again became victorious and India is forced to pay the highest amount of payment equal to 25.84 million US dollars in the year 2002-03. During this period the Iranian export to India of Sulphar and unroasted iron pyrites grew at the rate of 16.01 percent annually.

India's import of art, resins and plastic materials etc from Iran showed a negative trend since 1996-97 to 2001-02, but the fiscal year of 2002-03 performed well and improved remarkably. In the year 1996-97 Iran exported this item equal to the worth of 5.36 million US dollars but this figure, having a continuously negative growth, came down to 0.05 million US dollars in 2001-02, the lowest one for the whole study period.

India's import of Metalifers and metals scrap from Iran represents a wide fluctuation during the study period. The Iranian exports of Metalifers and metal scrap to India amounted 13.15 million US dollars in 1996-97. In 1998-99, it decreased to 1.02 million US dollars but after that it maintained an up trend till 2001-02 and reached to 10.71 million US dollars. Again it came down to 2.93 to 10.71 million US dollars. Again it came sown to 2.93 million US dollars in the year 2002-03.

From the above analysis, we can draw the following conclusion.

- (i) Most of the exportable commodities from India are of manufactured or finished product where as the importable commodities from Iran is primary in nature that shows an elastic demand of Indian products in Iran but less potentiality is found in the Indian market for the Iranian exports.
- (ii) The other important thing revealed by the present statistics is that since 1996-97 the total payment for Iranian export made by India has a declining trend where as India's exports earnings from Iran has increased remarkably. From a deficit of 680.02 million US dollars in 1996-97. India's trade relations with Iran turned into surplus by 398.27 million US dollars in 2002-03.
- (iii) There are five Indian commodities exported to Iran that have an average growth rate of more than 50.00 percent from these four five commodities are manufactured

products, which are of very crucial importance from the Indian side.

Trade Deficit between India and Iran: -

The foregoing table reveals that India had a persistent and chronic trade deficit with Iran. This deficit in the trade balance existed even before 1990. However, this high amount of deficit was only because trade with Iran expanded significantly over time.

In the year 1990-91, trade deficit with Iran were Rs.872 crores that increased to Rs.1193 crores in 1994-95 and in 1999-2000 it was up to Rs.4067 crores. Although the trade deficit with Iran was Rs.1216 crores in year 1980-81 which came down to Rs.877 crores in year 1990-91. This is the period of heavy war between Iran and Iraq and India's total trade and imports declined to a large extend during that period. During the period 1980-81 to 1990-91 exports to Iran increased at an average annual rate of 1.46 percent the import, in the same period the import growth rate from Iran was -2.39 percent.

It is seen from table that in 1990-91 the ratio of export to import was only 13.85 percent, which increased to 42.06 percent in 1993-94. Then started decline and came down to 22.29 percent in year 1996-97. Next two year showed improvement and reached to 33.56 percent in year 1998-99 but again in next year this ratio came down to 13.85 percent. During the period 1990-91 to 2000-01, the ratio of export to import was at highest-level recorded 107.46 percent in year 2000-01. In the case of Iran, the ratio of export to import was

TRADE BALANCES BETWEEN INDIA AND IRAN

Table: 4.3

S.No.	Year	India's Export to Iran	Iran's Export to India	Ratio	Trade Balance
1.	1960-61	5	30	0.16	-25
2.	1970-71	27	92	0.29	-65
3.	1980-81	123	1339	0.09	-1216
4.	1990-91	141	1018	0.13	-877
5.	1991-92	302	1435	0.21	-1133
6.	1992-93	331	1152	0.28	-821
7.	1993-94	501	1191	0.42	-690
8.	1994-95	492	1685	0.29	-1193
9.	1995-96	514	2001	0.25	-1487
10.	1996-97	692	3104	0.22	-2412
11.	1997-98	638	2353	0.27	-1715
12.	1998-99	669	1993	0.33	-1324
13.	1999-2000	654	4721	0.13	-4067
14.	2000-01	1037	965	1.07	+72
15.	2001-02	1207	1304	0.92	-97

(Rs. in Crores)

Sources: - Various issues of Economic Survey, Published by Government of India

highest in year 1990-91 it was registered 721.98 percent and lowest in the year 2000-01, which was calculated 73.05 percent during the same period.

From the above analysis, it can be said that during the whole decades of nineties India continued to suffer from trade deficit with Iran. However, in the first year of present decade recorded trade surplus but in the next year it again suffered trade deficit. So far as India's export to Iran is concerned, it had been improved remarkably in the later years of the last decade. In case of Iran, it showed ups and downs during the same period, due to the fluctuation in the oil price in the international market. From the view of Indian context, the balance of payment situation improved between India and Iran merely due to India's export to Iran was increased by 299.6 percent over the period of 1991-92 to 2001-02. On the other hand, Iran's export of India decreased by 9.1 percent during the same period.

Up to 1990, India's terms of trade with Iran declined over the period, due to steep rise in oil prices and secondly, despite high growth rate of India's exports, in total imports of the Iran declines overtimes. While the first two developments could be expected due to steep rise in oil prices in 1973-74 and 1979-80, by OPEC of which Iran is also member and India's large dependence on oil market to meet domestic requirements. The third development of fall in India's share in these markets was quite unexpected. One interpretation for the decline in India's share is that it did not respond fully to the opportunities existing there and the

Indian exporter failed to appreciate the opportunities prevailing in these countries.¹

The 1990s witnessed a major policy change as far as India and west Asia's economic relations are concerned, particularly at the time when India has made massive trade deals with Israel for the first time in its history. In the changed world scenario, when India's major ally the Soviet Union is now out of the map. The politico-economic alliance of India not yet affirmed its self. The US and other western industrial powers are still dominating in west Asia, but India can expect to play a big role in the liberalization era. Its traditional trading partners like Iran, Kuwait, Iraq, UAE and Egypt, still provide a large scope in the emerging market. In such a climate as one analyst points out, India can not only participate in petro-chemical development, but can also play an enormous role in plans for diversified industrialization in most of these countries. It can supply the hardware for infrastructure development. It can provide a variety of highly-skilled personnel in engineering, business organization, economic planning and the sophisticated branches of most professions. India can now be a potential market for the Arab countries. Since the Indian licensing system has failed to provide a basis for regional cooperation and effective export promotion, it seems likely that new development in the fields of industrial policy, financing of foreign trade and the development of public sectors in the

¹ "Export Agency Agreements, A Study in Selected Gulf Countries and A.R.E.", *Indian Institute of Foreign Trade*, New Delhi, PP. 131-132

import and export fields will provide a further basis for developing effective cooperation with other countries.¹

Although, Indian export to Iran in 1990s had increased significantly but still Indian exporter was not able to exploit the Iranian market in full extent. There are many reasons behind that such as, delayed deliveries from India, differences between the samples and specifications and the actual goods exported, lack of understanding between the Indian exporter and importers in these countries etc. Similarly there have been many instances of mal practices, delays, poor quality, lack of export culture, poor marketing efforts etc. as the reasons for decline in India's trade share in Iran. The Indian planners and exporters have concentrated themselves on the supply side of exports and have constantly neglected the demand side, which is equally important for export promotion.

Problem in Trade between India and Iran:

The Indian sub-continent witnessed the emergence of some qualitative change in the early 1970s, particularly in the power structures. The Indo-Pak war of 1971, and the emergence of a new secular country Bangladesh followed by the withdrawal of British army from Gulf region has given a new role to India to play. At the same time, the absence of Britishers from the region provided an opportunity to Iran to lead the Gulf region. This required the accumulation of modernized arms and ammunition and hence embarked upon

¹ Namjoshi, M.V., "Indo-Arab Co-operation" Grover, Varinder, (ed.), *West Asia and India's Foreign Policy*. Deep and Deep Publications. New Delhi. 1992. pp 92-99

a massive armament programme from their increased oil revenues. Iran has always soft-corner for Pakistan a radical rival of India, due to their religious sentiments. This created an atmosphere of misunderstanding between these two countries from time to time. But the economic obligations over ruled the political differences after the oil crisis of 1974 and Indira Gandhi's visit to Iran during April May in the same year.¹ To strengthen the economic ties with Iran, India put a new economic diplomacy have consisting the following objectives.

- (i) Promotion of close economic and commercial relations, bilateral agreements, coordination of actions and in particular the intra Governmental joint commission.
- (ii) Working of the technical assistance programme geared to the possibilities of utilizing the maximum of India's technical advancement.
- (iii) Support for economic collaboration and cooperation at regional and international level.
- (iv) Securing joint venture, joint project, consultancy services, projects different payments, soft loans etc.
- (v) Export of skilled, semi skilled and non-skilled manpower.

The above economic policies towards Iran have been achieved successfully that enhanced the volume of trade

¹ Pradhan, Bansidhar, "Changing Dynamics of India's West Asia Policy", *International Studies*, Vol. 41, 2004, Saga Publication, New Delhi, P. 28

between these two countries. The performance of the Indian exports to Iran is appreciative but it would not be wrong to say that India failed to exploit the opportunities and prospects in the Iranian economy.

One of the most striking features of the Iranian market during 1980s has been the phenomenal growth in the size and number of the local companies. The growing numbers of domestic companies put pressure on the Government for preferential treatment. This has changed the composition of Iranian import. Before 1980s, the project market of the Iranian economy was totally with the foreign companies but after 1980s, a tremendous growth in the project market of the indigenous companies has been registered. With the passage of time, these companies have become strong enough to knee down the Government for the creation of business climate in their own favour. Now they are capable to undertake variety of jobs successfully and efficiently in the midst of stiff competition from the outside companies. This has certainly downsized the level of exports of Indian companies.

A sharp decline in the share of Indian export of civil engineering and industrial contracts to Iran has been observed mainly because of the fact that the Indian efforts have been largely confined to Iraq, which has been engaged in a prolonged war since 1980.¹ The softer oil market and the Gulf war has slow down the construction and industrial activities that has affected the Indian trade volume more

¹ Jha, A.N., *India's Economic Diplomacy in the Gulf*, ABC Publication House, New Delhi, 1988, P. 150

significantly. Even in the GCC states Indian companies have not been able to retain their pressure.¹

The other important aspect of Indian economic ties with Iran has been the exports of its manpower. Since independence, to the decade of 1980s, the trend was towards the export of semi-skilled and non-skilled labourers. But the improvement in level of human resource development during 1990s, the manpower export to Iran acquired a new dimension both in qualitative and quantitative terms since then.² After 1991, there is a steady flow of people with remarkable professional skill such as doctors, engineers, software professionals to America and European Countries. This type of trend has ignored the prospect of manpower export to Iran.

A major problem which the Indian labourers particularly unskilled has to face since a long time is their exploitation by various recruiting agencies. In the absence of any comprehensive guidelines and institutional mechanism by the Indian Government, these immigrants have often been lured by unscrupulous agents charging them exorbitant rates and letting them find for themselves once they reached their destination. This is the other reason that became an obstacle in the way of manpower export to Iran.

Ever growing good political and Economic ties between India and developed nations has been the other important

¹ *Ibid.*, PP. 150–151

² Harshe, Rajesh, "India –Iran Relations Under Globalization", *Economic and Political Weekly*, Sameeksha Trust Publication, Mumbai, XXXII, (33 –34). August 16–23, 1997, PP. 2100–2101

reason, which adversely affected the trade growth between these two countries.¹ The share of Indian import from Iran was 2.6 percent in 1960–61 that increased considerably over the time and became 10.7 percent in 1980–81. However there was a drastic change after 1980–81. In 2000–01 the share of Indian import from Iran slashed to 0.2 percent. On the other hand the share of other countries and developing nations (excluding OPEC) rose significantly to 36.2 percent and 17.5 percent respectively in 2000–01.² In the case of the share of Indian export to Iran the same pattern is valid with the exception that the share of developing nation is highest followed by others.³

In 1987, World Bank examined the link between trade strategy and economic performance of 41 countries for the period of 1963 to 1985. The WDR (1987) ranked India in the group of strongly inward-oriented country. According to the Report, the inward-oriented economies could manage a growth rate of 2.5 percent per annum growth rate of GDP in the period of 1973–85. The other economic indicators like PCI, ICOR, development of manufacturing sector growth of manufactured export etc had shown the similar tendency.⁴ Such type of policies had badly affected the trade relation between India and Iran till 1990. After the new economic reforms the highest growth rate is achieved in services sector

¹ *Economic Survey*, Government of India, New Delhi, 2000–01, P. 145

² *Economic Survey*, Government of India, New Delhi, 2000–01, P. 88

³ *Ibid.*, P. 89

⁴ *World Development Report*, World Bank Publication, Washington, 1987, P. 78

with a greater collaboration with developed nation that undermines the opportunities in Iran.

The ever growing Balance of Payments (BoPs) deficit has been great problem for India since independence. To cover the deficit, foreign aid is used as an easy means. Due to this the burden of foreign aid has increased year after year up to the fourth five-year plan¹ it was Rs. 13056 crores that rose to Rs. 155.664 crores during 1990–91 to 2000–01.² This mounting burden of foreign aid brought certain limitation in formulation of foreign trade policies. The aiding country always wants a number of soft economic policies towards their product like tariff and quota concession, import of a particular commodity, at their own prices, fixing of quota for their products in the aid receiving country and other favorable environment for her economy. Since most of the aids granting countries to India are developed countries of American and Europe, most of the trading activities is carried out with these countries that harms the trade relations between Iran and India.

Iran is still considered and untapped market. Under the restrictive framework of rigid socialism and religious obligations, the Islamic Republic of Iran had experienced an unbalanced development of her economy. The unavailability of various work related incentives has given rise to a highly inefficient economic structure. The vast mineral reserves of Iran have been wasted on a monumental scale and never

¹ *Economic Survey*, Government of India, New Delhi, 1991–92, P. S–91

² *Economic Survey*, Government of India, New Delhi, 2001–02, P. 95

utilized rationally and judiciously giving rise to highly distorted production and consumption patterns due to the absence of a right partner. Hence a creative attitude is needed to exploit the opportunities in Iran.

Chapter -5

INDIA'S JOINT VENTURE and PROJECT EXPORTS IN IRAN

India's Policy Framework for Joint Venture and Investment:-

Joint ventures have been recognized all over the world as one of the positive ways of fostering and promoting economic cooperation as a part of the global strategy of development. Economic cooperation through joint ventures can help to achieve greater specialization and diversification of production structure by making efficient allocation and utilization of available factors of production.

In 1998, ITC conducted a worldwide survey on trade contracts. Over 245-Trade Promotion Organization (TPOs) from 125 countries responded. The survey showed that joint venture model contracts were requested and considered a priority by 77 percent of TPOs. Surprisingly, in less than two years a group of some 55 specialists from 45 countries, representing all legal cultures have agreed on two models. A joint venture may be about the joint performance of a single activity contract, or about the organization of long-term cooperation between parties. Model contracts are already available for short-term, single-activity joint ventures, such as a construction contract. For example the International Federation of Consulting Engineers, Procurement and Construction (EPC) turnkey contracts mainly for long and medium term joint ventures. The joint venture model contracts vary with respect to both the objective of the joint venture and its joint implementation. As a result, two types of joint venture model contracts have been prepared, the first

in view of creating a company the second in view of cooperation without creating a company. These are applicable to different situations.

Incorporated Joint Venture Contract: -

This model to create one or more joint venture companies, which are legal entities established to carry out a common activity. In this case the joint venture agreement helps to prepare the creation of a company in a specific country. In addition to the joint venture agreement, the cooperation of the parties requires further legal instruments, usually articles of incorporation of the company, by laws and a share holder's agreement.

Contractual Joint Venture Contract: -

This model regulates cooperation between parties. A legal entity is not created, but a collaborative group exists. Only one legal instrument is usually necessary.¹

It is widely acknowledged that India's having achieved comparatively a high degree of industrialization and sophistication in its industrial production as well as having achieved significant level of development in the matter of large, medium and small scale manufacturing sectors in general has been soundly placed to provide and share some of developing countries. This is being done in a number of ways and one of the important modes being joint ventures.

The policy liberalization that was initiated in October 1992 aimed, to simplification of the procedural formalities

¹ *Indian Export Bulletin*, IIFT publication, New Delhi. May 10-16, 2003, PP 18-19

and the raising of the ceiling for investment in form of cash. It provided for automatic approval of overseas investment if the amount of investment was within US \$2 million and the cash component there of did not exceed of US \$0.5 million. Such proposals were to be cleared within 30 days. The ceiling for cash investment was raised through another policy announced in August 1995. The 1995 policy compartmentalized the proposals into two categories, the "fast track" and "Normal track". The fast track cases involve automatic approval by the Reserve Bank of India (RBI) within the three weeks. But only those proposals qualify the fast track where;

- The total value of the investment by the Indian party does not exceed US \$4 million and in respect of Indian rupee investment in Nepal, the total value of the investment does not exceed Rs. 25crores.
- The amount of investment is up to 25 percent of annual average export/foreign exchange earnings of the Indian party in the preceding three years.
- Investment outflow is to fully repatriate through dividend and other such remittances within a period of five years.

The investment may be fully in the form of cash or partly in form of the value of plant and machinery supplied or of the payments for technology supplied.

The fast track provisions cover also financial sector joint ventures, but in this case, the proponent must have; a good track record for a minimum of three years, been

registered with the securities and exchange Board of India, a network of Rs. 150 million and maintained a capital adequacy norm of 8 percent. There is one limitation within with the fast track cases. Any Indian company can use this route only once in a block of three financial years.

The proposals not qualifying for the fast track automatically come under the "normal track". The proposals involving over US \$4 million but not exceeding US \$15 million are considered under normal track. They are judged by a special committee. The committee examines their feasibility in terms of foreign exchange earnings and if satisfies, recommends them for RBI approval.¹ However, as per the 1997 amendment, if the Indian company maintains an EEFC account and if the balance in this account is sufficient, the proposals are approved even without a reference to the RBI. The august 1998 notification of the Government relaxes the condition further that the proposals may be approved even if sufficient balance do not exist in the EEFC account. Again, if the amount of investment comes through the GDR route, any reference to the RBI is not required. The proposals are cleared by the Ministry of Finance.

It does not however, mean that proposals involving an amount of investment exceeding US \$15 million are not permitted. These are cleared if the excess amount over and above US \$15 million comes through the GSR route. There are also cases of approval where the investment exceeds US

¹ *Monthly Newsletter*, Indian Investment Council Publication, Government of India, New Delhi, February 1998, PP. 5 -8

\$15 million and the excess amount do not come through the GDR route, but these are very rare when the performance record of the proponent is exceptionally satisfactory. The 1997 amendment provides that if the investment up to US \$15 million is financed by EEFC account or by GDR finances, the condition relating to the repatriation of investment through dividend etc, does not apply.¹

The adoption of joint ventures as a means of economic cooperation among developing countries by Indian dated back to 1958 when Birla Brothers initiated the setting up of a textile mill in Ethiopia. During 1970s and 1980s there were a large number of approvals for setting up of joint ventures abroad. But since the policy was designed in the framework of the then existing foreign exchange Regulation Act, it was not very liberal and it failed to give a big push to investment overseas. At the end of 1991, there were only 245 joint ventures overseas, of which 161 were in operation and 84 were under different stages of implementation. Total investment in the equity of foreign concerns stood at US \$49.4 million. But with liberalization in policy, there were jump in the number of approved cases. At the end of December 1995, the non-wholly owned subsidies were more than 593. About 185 of them were in operation and the rest 408 were under different stages of implementation. Besides, there were 423 wholly owned subsidies out of which 81 were in operation and 342 were under implementation. Thus the

¹ Sharan Vyuptakesh, "Recent Trends in India's Overseas Investment" *Quarterly Journal*, Indian Institute of Foreign Trade Publication, New Delhi, April – September 1998, PP. 28 –29

total number of overseas venture rose to 1016, which were over four- fold of the 1991 figures. In the years 1996 and 1997 witnessed even a faster growth. 146 WOSs were approved in 1996 but this number was slightly down to 122 in 1997. The numbers of approvals of non-WOSs during these two years were respectively 112 and 102. When we take together these two years, the number of approval is greater than that of during 1992–95. This is 241 as compared to 193 during 1992–95. At the end of December 1991, the total investment overseas was Rs. 1.209 billion, the magnitude of overseas investment raised to 33.620 billion at the end of December 1995, in which, Rs. 15.865 billion as investment in WOSs abroad and Rs. 17.755 billion in non-WOSs. In the year 1996 and 1997, the amount of approval stood respectively at Rs. 8.328 billion and Rs. 18.722 billion.¹

In the liberalized environment, as economies become increasingly open and trade between countries expand; financial transactions became global through financing the trade of goods and services. Capital is the engine of economic development and this statement is gaining importance in the recent times. Traditionally, the various sources of capital for developing countries were either the demand of their output by industrial countries, or foreign aid, or loans from foreign banks. In today's scenario where official development assistance flows are steadily declining high bank interest rates and portfolio investment involve

¹ *Ibid.* PP. 29–30

risks. Foreign direct investment is considered to be the major sources of funds which may contribute in increasing the economic growth rate of the developing countries. Recently, the liberal and open Government policy reform in FDI is to integrate the Indian economy to the World economy.

The policy towards foreign investment has undergone a sea change. Prior to 1991, the policy towards foreign investment was restrictive and at best permissive. While it welcomed foreign investment in most cases it was limited to 40 percent. Majority ownership was an exception rather than the rule. This policy was given up and foreign investors were given the freedom to own majority share holding. A Foreign Investment Promotion Board (FIPB) was set up to be proactive with respect to foreign investment. While foreign individuals are not allowed to invest in Indian stock markets, recognized institutional investors have the freedom to sell the shares at any time and repatriate the funds. Thus a fundamental change in the approach to private capital flows occurred after 1991.¹

India has one of the most transparent and liberal FDI regimes among the emerging and developing economies. By FDI regime we mean those restrictions that apply to foreign nationals and Indian owned entities. The differential treatment is limited to a few entry rules, spelling out the proportion of equity that the foreign entrant can hold in Indian (registered) company or business. There are a few

¹ Rangarajan, C., *Select Essays on Indian Economy*, Vol. I, Academic Foundation, New Delhi, 2004, P. 235

banned sectors like lotteries and gaming and legal services and some sectors with limits on foreign equity proportion. The entry rules are clear and well defined and equity limits for foreign investment in selected sectors such as telecom quite explicit and well known.

Most of the manufacturing sectors have been for many years on the 100 percent automatic route foreign equity is limited only in production of defense equipment 26 percent, oil marketing 74 percent and Government owned petroleum refineries 26 percent. Most of the mining sectors are similarly on the 100 percent automatic route, with foreign equity limits only on atomic minerals 74 percent, coal and lignite 74 percent, exploration for oil 51 percent to 74 percent and diamonds and precious stones 74 percent. 100 percent equity is also allowed in non-crop agro-allied sectors and crop agriculture under controlled conditions. In case of infrastructure services, there is a clear dichotomy. While highways and roads, ports, inland waterways and transport and urban infrastructure and courier services are on the 100 percent automatic route, telecom 49 percent, airports 74 percent, civil aviation 40 percent and oil and gas pipelines 51 percent have foreign equity limits. India also has a clear policy of FDI in services, with 100 percent automatic entry into many services such as construction, township, hotels, tourism, films, IT and medical/health, education, advertising and wholesale trade. The financial intermediation section has sectoral caps like banking 49

percent, insurance 26 percent, as do some service like professional services 51 percent.

Subject to these foreign equity conditions a foreign company can set up a registered company in India and operate under the same laws, rules and regulations as any Indian owned company would. There is absolutely no discrimination against foreign invested companies registered in India. There is however a minor restriction on those foreign entities that entered a particular sub sector through a joint venture with an Indian partner. If they want to setup another company in the same sector it must get a no objection certificate from the joint venture partner.¹

Foreign Direct Investment provides financial resources for investment in the host country and there by augments that the domestic savings efforts to achieve sustained economic growth. In the year 2000 the domestic saving in India was around 26 percent of GDP, which was best to support a GDP growth rate of 6 percent and to achieve a sustained growth rate of 6 percent. The average investment rate of 27 to 32 percent is required. This investment saving gap can be bridged by attracting FDI. The spurt in globalization is putting pressure on the existing infrastructure like telecom, roads, power and ports to serve business in a cost effective and efficient manner in order to achieve a sustained economic growth of 7 percent. The investment in building the infrastructure is predicted to be around US \$115 –130 billion in the next five years, and in the following next years,

¹ *Foreign Direct Investment*, World Bank Publication, London, 2003, PP. 24 –26

around US \$ 230 billion which is only possible by attracting FDI in infrastructure sectors.¹ Advantage emanates from the double tax avoidance agreement that India has with that country. This agreement means that any foreign investor has the option of paying tax either in India or in Mauritius. Since the tax rates prevailing in Mauritius are amongst the lowest in the world, many multinational corporations prefer to route investments in India through Mauritius. While prior to 1990s, India had to depend on a few developed western countries for capital, during 1990s a number of other countries have shown interest in investing in India. These countries are Italy, Australia, South Korea, Malaysia, and Singapore etc. South Korea's share in aggregate FDI approvals, which was only 1.2 percent in 1991, rose to as high as 13.2 percent in 1999. During the same period, the share of Australia increased from 0.5 percent to 2.4 percent while that of Italy rose from 3.4 percent to 6.4 percent. Many other countries like Israel, Thailand, South Arabia, South Africa etc, whose name did not appear in the FDI list prior to 1991 have gone on to increase their steadily over the years.²

Industry Wise Inflows of FDI: -

The total FDI inflows over the period 1993–94 to 2000–01 were of Rs. 51,769 crores. Of this the maximum inflow of Rs. 10,575 crores which is 20.4 percent of total inflow went

¹ Suresh, K. Chadha, *Foreign Direct Investment in India: An Overview*, Vol. 44, No. 12, Ministry of Information and Broad Casting Publication, New Delhi, December 2000, P. 12

² Tushar, K. Mohanti, *Economic Times Research Bureau*, The Economic Times, New Delhi, 30th October, 2000, P. 14

The post reform period has witnessed a rapid increase in foreign direct investment from Rs. 534crores in 1991 to Rs. 37,039crores in 2000. However, the actual FDI has been considerably less than the approved, for as many as 6 out of 10 years, the rate of realization has been less than 30 percent. The total FDI approved over the period 1991 to 2001 has been Rs. 2,700,64crores where as actual inflow has been only Rs. 1,05,413crores, which is just 39 percent of the FDI approved. Thus as much as 61 percent FDI approved has not materialized.¹

Sources of Foreign Direct Investment: -

Among the country wise foreign direct investment approved in 1990s, the largest source of FDI to India over the period 1991–2000 has been the USA and its share to total FDI approved has been 22 percent. The second position is occupied by Mauritius with the share in FDI approved over the period of 1991–2000 being 12 percent. In some years, Mauritius has been the largest source of FDI in this country. However, the Mauritius based investments are nothing but US investments. They are routed through Mauritius because of the tax advantages. Engineering industry has attracted the amount of FDI. The second place was occupied by electronics and electrical equipments and third by chemicals and allied products. Services with a share of 9.7 percent occupied the fourth position. In 2000–01, there was substantial inflow in computer industry. Foreign direct

¹ *Economy Survey*, Government of India, New Delhi, 2001 –02, P. 167

investment in this industry was Rs. 1397crore, which was 16 percent of total foreign direct investment in that year.¹

Iran's Policy Framework for Joint Venture and Investment in Iran: -

Before 1979, many foreign companies from different countries were active in Iran. After the Revolution and particularly with the beginning of the Iran Iraq war in 1980, some of these companies closed their offices and continued their business with Iran mainly through direct sales. The immediate aftermath of the Islamic revolution in Iran translated into one of the most severe shocks to the Iranian economy. The mass nationalization of industries put some 60 to 80 percent of the economy under the Government control. However, Article 44 of the new constitution clearly mentions the legal existence of the three economic sectors, the state sector, the co-operative sector and the private sector. The scope of the state sector that was defined by this article is meant to limiting the private sector to small economic enterprises. Although in practice this law was never fully implemented, the very existence of this has been one of the key obstacles to sound development in Iran. Moreover, Article 81 of the new Iranian constitution prohibited the grants and concessions to foreign individuals and companies' interpretation of this article has caused much confusion. while some maintain it completely prohibits foreign investment. Mostly now believe its purpose was to prevent

¹ *Statistical Outline of India*. Tata Services Ltd. Publication, Mumbai 2001, PP. 169-170.

the granting of sole and exclusive concession, the later interpretation clearly allows for foreign investment provided it is alone in a manner that complies with other relevant local law. In practice however such a guarantee would probably be impossible to obtain. These are the factor, which were hurdle in the formation of joint venture in Iran. The era that started with the first five-year plan is known in Iran as the era of Reconstruction clearly for the regime the reconstruction of the economy and the war-damaged regions was a high priority. Furthermore, the Government planned to liberalize the economy through partial privatization of industries and services utilize the economy's idle capacities.¹

In the privatization process some leading sectors of the Iranian economy, issued invitation to the private sector in 1991 to participate in the petrochemical industry. For its development, the Iranian Government and Majlis approved a ceiling of \$3 billion for funds to be borrowed from foreign sources. Iran's particular interest is to enter into petrochemical joint ventures with foreign interests provided that the projects are established in Iran, where raw materials and natural gas are readily available. However, existing legislation in Iran does not impede the participation of foreign partners in new projects; provided the projects are 51 percent owned by Iranian interests equity Government or private participation would be in the form of equity. While joint ventures with foreign partners are being seriously

¹ Bijan Khajehpour –“Iran's Economy –Twenty year of the Islamic Revolution”, Esposito, John .L. and Ramazani, R.K., (eds.), *Iran at the cross roads*, New York, 2001, PP. 94 -95

considered. The National petrochemical company NPC has already taken positive measures to launch privatization in the petrochemical sector at home with two salient features.

- (a) By selling part or all of the existing and less strategic petrochemicals plants to the private sector and
- (b) By launching, 10 new projects which were tailored primarily for implementation by the private sector.¹

Iran's deputy Oil Minister and President of NPC had disclosed in 1994 that NPC's direct investment in petrochemicals would be limited to \$1.8 billion, with the private sector expected to invest an additional \$2 billion. As far as foreign investment in Iran is concerned, according to existing legislation (1994), foreign ownership in the petrochemical industry is restricted to 49 percent of the share capital with a 51 percent majority to be held by Iranians. However, NPC has asked parliament to consider new legislation so as to allow 100 percent foreign ownership. The company expects to attract foreign investment to the petrochemical industry because of the generous incentive. Despite its failure so far to carry through its policy of privatizing some parts of the petrochemical industry NPC is still committed to expanding the role of the private sector in that industry.²

The oil industry provides a key stimulant for the wider economy. The Majlis has authorized the Government to

¹ *Middle East Economic Survey*, 38 (1), 1994, A 5–6, see also, *OPEC Bulletin*, April 1998, PP. 17–29

² *Middle East Economic Survey*, 28th Oct. 1991, PP.D-1-4.

deploy wind fall earning to diversify the economy and inject momentum into the private sector. A special stabilization fund was formed in March 2000 for managing surplus oil revenues. The fund is now estimated to have reached \$ 10 billion. The law permits Banke Markazi (Central Bank) to lend 50 percent of surplus revenues for private sector projects in non-oil industries such as agriculture, mining, transportation and services. These are secured loans mainly to export oriented industries¹

An important emerging market in west Asia is Iran, where the Government is encouraging foreign investment, particularly in the field of oil and gas exploration. In November 1992, the speaker of the Iranian Parliament Mr. Neteq Nouri, defended the use of foreign investment to develop Iran's economy, making use of foreign investment to the extent allowed by the constitution. Iran attracted foreign private sector investors for its flaring reduction project with the cost of about \$ 800 million. Foreign investments are also several free zone Areas have been designed by the Government, in which tax exemption and other facilities have been provided. The free zones are located in Qashem Island, Kish Island, Chabahar. Furthermore, other special economic zones example Sirjan, salafehehgan, Bander Abbas have been introduced in which facilities are available except tax exemption foreign bank and insurance companies are permitted to operate in the free zones. According to new

¹ Siddiqui, Moin A., "Economic Report", *Middle East*, No. 316, London, Oct 2001, P. 39

privatization trends investments of such foreign entities in the mainland of Iran will be considered positive.¹

To make investment easier in Iran the law concerning the encouragement and protection of foreign investment in Iran, amended text approved in June 2002, foreign companies may invest in newly established factories and industries directly or through terms and condition of Buy-back contract. This participation has been limited to a maximum of 49 percent of the share capital of newly established companies. The law governing "Encouragement and protection of foreign investments in Iran, approved in June 2002, provides various facilities for foreign investors including participation of more than 50 percent of the equity of a new established joint venture company investment of foreign company in new or existing company with less than 50 percent of equity is allowed without any permission and the approval of the office for the encouragement and protection of foreign investments is necessary for the registering of investments with more than 50 percent of equity.²

Legal breaks through has been initiated by the Islamic Consultative Assembly (Majlis) to remove this hurdle and in turn, boast Iran's economic growth by attracting foreign participation. New legislation foreign companies can now enjoy easy access to official representation and the

¹ Shahabi, Sohrab, "Investment Policy in Iran" *The Iranian Journal of International Affairs*, VII (4), Tehran, winter 1996, P. 771

² *Indian Export Bulletin*, Indian Institute of Foreign Trade Publication, New Delhi, March 8-14, 2003, PP. 23 -24

establishment of branch offices inside the country. However, since the Islamic Republic of Iran was founded in 1979, one of the major bottlenecks for the establishment of representative or branch offices of foreign companies in the country has been the provisions that they should have already signed a contract of cooperation with state run or public entities. The law for allowing the Registration of a branch or representative of foreign companies passed in November 1997. According to law, a branch is not a separate legal entity, although it has its own office and assets in Iran. A branch manager, appointed by the parent country's board of directors, runs the branch office affairs in Iran. The branch is responsible for income tax on contracts for work performed in Iran.

The formalities for setting up a branch are the same as those for a company. The following documents, which must be legalized and certified by the Iranian embassy in the relevant country, are necessary.

- (i) Parent Company's articles of association.
- (ii) Board of director's resolution concerning the opening of a branch in Iran and the appointment of a branch Manager.¹

Article 44 of the Islamic Constitution stipulates that banking sector must remain under state control. Bank Markazi has embarked on a formidable long-term programme of restructuring the financial sector, with a view to

¹ *Quarterly Journal*, Iran Chamber Of Commerce, Industries and Mines, Vol. 5, No. 1, 1998, PP. 25 -26

enhancing overall competitiveness and efficiency at state owned Iranian banks. Under the regulations issued by the Iranian Central Bank foreign banks could set up representative offices in Iran. Such offices will be registered in Iran as branches based on prevailing regulations. These representative offices are not allowed to conduct local banking activities in Iran, the Central Bank, has also directed that foreign banks are only authorized to reopen representative offices and conduct offshore business" in free trade zones in the gulf Islands of Chabhar, Kishand Qashem.

India's Joint Venture and Project Exports to Iran: -

In the year 1973, the six fold increase in oil prices by the OPEC, the consequent accumulation of petro-dollar therein and the desire of the Iran to divert these resources into building for themselves more resilient Economics with massive industrialization programme well before the oil reserves were exhausted, led to a significant growth in the import of engineering goods and joint ventures took place in Iran during this period, but unfortunately India, could not exploit the market due to Iran's unfriendly attitude towards India. The events which disappointed India were Iranian response of indo-Pak war of 1965 and 1971. To the utter disappointment of India Iran gave Pakistan more moral and material help than any other Muslim country in the World.¹ This development coupled with Iran's pro-west attitude brought India's relations with Iran on its lowest ebb. As far

¹*Foreign Affair Report*, ICWA Publication, New Delhi, June 1973, P. 118

as joint ventures and project exports are concerned these were smallest in the case of Iran as compared to other countries of the region. A large number of India's joint ventures in the region are in UAE, Saudi Arabia, Kuwait and Oman.

In the year 1965, the first joint venture was setup between India and Iran was Madras Refinery Ltd. In which Indian Ministry of Petroleum holds 50 percent equity, National Iranian Oil Company NOIC holds 15 percent and other private sector banks FIIs etc holds 35 percent. Which had a production capacity 2.8 million tons and it was further extended to 3.5 million tons per annum in 1974.¹ In April 2000, the name of Madras Refinery Ltd. was changed to Chennai Petrochemical Corporation Ltd.

Irano-Hind Shopping Company Ltd. (IHSC) was formed in 1974. The Islamic Republic of Iran Shipping Lines (IRISL) holds 51 percent equity; Shipping Corporation of India (SCI) holds 49 percent equity. It is Government Company working since 1983. IHSC has a fleet of eight ships with an average age of 15 years. These include 4 bulk carries, two containers carries and two general cargo ships. Two handy max (43,200) bulk carriers have been added in June 2000 and January 2001. The company plans to increase the number of vessels to 12 to increase capacity, diversity operations and reduce risks. IHSC had commenced operation

¹Singh, Darshan, "Appraisal of Iran-Residen Rafsanjani visit to India in April 1995", *India Quaterly*, No. 51(2-3), ICWA Publication, New Delhi, P. 125 -126

in 1975 with one chartered vessel. The company, which started with a joint investment of around US \$ 1million, has yielded over US \$ 10 million to each of the founding partners during the last 28 years.¹

Instead of joint ventures India had a number of Consultancy and project export during the seventies. Under Colombo plan India extended facilities to two trainees from Iran to study the cooperative marketing courses in India at various India cooperative training institutions during 1974. In the same year India provided 32 training places in Iran and spent a total of \$ 51,000 for this purpose. India provided two trainings places during 1975 and one during 1976, to Iran under Colombo plan agreement. However, India's total expenditure for various aid programme to Iran under Colombo plan from 1950 to 1976 was worth Rs. 1137 thousand.² During 1975-76 Iran recruited 1200 medical personnel from India. Under Indian Technical and Economic Corporation Programme (ITEC) India received two trainees from Iran in 1974. Under the same programme the number of Indian experts working in Iran during 1973 and 1974 was four.³ In the year 1975, India had three projects in Iran to the value of Rs. 103 lakhs. One project was related to pressure vessels for fertilizer refinery project and its values was Rs.80 lakhs. The other project which India had in Iran was

¹ www.meadev.nic.in

² Colombo plan Consultative Committee report -1978, P. 343

³ Vohra, Dewanc, *India Aid Diplomacy in the Third World*, Vikas Publication, New Delhi, 1978, P. 149

related to the preliminary feasibility cum –cost study of new railway line in Iran for a total length of 340 Km and its value was Rs.23 lakhs. During 1974–75, India allotted 21 seats for engineering courses and six seats for medical course in various Indian universities for Iranian Students.¹

Apart from consultancy programme, and important agreement signed in the year 1975, for the development of Kudremukh Iron ores mines for which Iran had agreed to allocate a significant amount of \$630 million and in return agreed to buy 150 million tones of Iran ore from India over a 20 year period.² But this commitment could not be honoured because of internal policies and subsequently the change of Government in Iran did not allow materializing this agreement fully. By then, Iran had advanced \$225 million. The project was completed subsequently by the Government in record time and within the stipulated cost. The Kudermukh Iron Ore Company Ltd. was established in April 1976 for the management and implementation of the Kudremukh Iron ore project with a designed capacity of 7.5 million tones of iron ore concentrate per annum. India, however, settled a 12 year dispute over a \$250 million debt to Iran and agreed to supply iron ore to Iran for 15 years.³

¹ *Ministry of External Affairs (MEA) Annual Report*, New Delhi, 1975 –76, PP. 206 –207

² “India Treaty to Take Part in West Asia Talks: Rao”, *The Business and Political Observer*, New Delhi, 4th Feb. 1992

³ Khan, Javed Ahmad, *India and West –Asia*, Saga Publication, New Delhi, 1999, P.183

In the year 1978, turmoil began in Iran polity against the policies of the Shah and finally forced him to leave the country. After that, the spiritual leader Ayatollah Khomeini formed the new Islamic Government in 1979. New Government cancelled all the agreement and protocol signed by the previous Government. This action badly affected the process of joint venture development between the two countries. The newly established Khomeini was adopted new economic and foreign policy, which was very strong anti-U.S. and anti-west. The Government started mass nationalization of industries and put 60 to 80 percent of the economy under the hand of the Government. Just after the one year of revolution the war was started with Iraq and came to an end in 1988. During the war period the resources of the country were diverted to meet the war expenditure and the process of infra-structural and industrial development was stopped.¹

During the war period, few Indian delegation visited Iran and few number of agreements were signed for various consultancy and training programme but there was not a single agreement of joint ventures or project exports of significance. Although high-level delegation from Iran and India visited the countries of each other but they could not come to an agreement for setting up joint ventures and exporting big construction or housing projects. However, a few agreements or small joint ventures were signed between

¹ *Economic Trends*, Vol. XV, No. 3, FICCI Publication, New Delhi, Feb. 3 1st, 1986, P. 28

the two countries or export or import of specific commodities and obviously it was due to the war with Iraq, which did not allow the transfer of resources in other sectors. However, in 1986, India signed few agreements with Iran in setting up small-scale industries and undertaking road and railway construction and various employment oriented rural development programme.

The consultancy programme was continued during 1990s. In the year 1991, the Indian Petrochemical Corporation Ltd. (IPCL) was bagging a 4.4 million contracts train personnel of the Iranian National Petroleum Company (NPC) to develop their petrochemical industry. This programme had been completed in ten phases. In each phases 30 trainees were trained by Indian experts. During the same year, there was Engineers India Ltd, which provides management and co-ordination services including planning, rescheduling, cost control and construction managements, bagged a prestigious management services contract for the \$2 billion petrochemicals complex of Tabrez Petrochemical in Iran against stiff international competition. The assignment was worth over \$17 million in terms of services and cost alone. In which 100 experts of various engineering disciplines were sent.¹

Indian private sector was also provided training programme in Iran during 1990s. India's private sector Tata Consultancy Engineers (TCE) bagged a contract to render

¹ IPCL bags \$ 4.4 billion project in Iran, *The Business and Political Observer*, New Delhi, August 2nd, 1991, P. 11

project management services for Tanvir's 3+390 MW Gilan combined cycle gas based power plant at Rasht in Gilan province of Iran. The company also bagged a contract worth about \$1.4 million plus expenses for similar project management services for the 4+25 MW Grab Thermal Power project at Hamadan.¹ In the year 1997, a comprehensive training programme organized by Irano-India Cement Engineering Consultants Company (IICEC) was inaugurated in Tehran on October 1997. One hundred thirty Iranian Engineers will attend training classes that were conducted in five stages with the participation of 40 Indian experts. IICEC is a joint venture consultancy company set up in 1996 between ACC India and Pars Khuzestan of Iran. In the same year, Iran and India signed a Memorandum of Standing of bilateral cooperation in the Veterinary field as well as a protocol on health requirements for meat exports. Based on the protocol, the two countries have undertaken to exchange experts, information and expertise in the areas of veterinary and to furnish each other with the information on health care of livestock in their respective countries.²

Since 1991, India has setup a number of projects in Iran. These are, BHEL has setup a major thermal power project in Kerman which has cost of \$700 million and has a capacity of 810MW. India also setup a major sugar project in

¹ Khan, Javed Ahmad, *Op.Cit.*, P.188

² *Commercial and Economic Report*, Embassy of India, Tehran, May 1998

Khuzestan which was cost of \$200 million.¹ In the field of Railway India acquired significant project during these period. In 1992, officials from the Indian Railway Construction Corporation (IRCON) made detailed studies on Iran's intention to link the central Asian region, electrification and modernization of exiting facilities and Tehran's planned metro. Later in 1994, Iranian Transport Minister Akbar Torkan and Indian Railway Minister C.K. Jaffer Sharief signed multi-model and container transportation, besides goods transit for other countries through their territories. The two countries then worked on the two railway links in eastern Iran the 700 Km south east to northern Iran Bafq Mashhad railway line and the 500 Km east west Kerman Zahedan track and services. Both tracks were for providing new land routes to the fast developing central Asian republics through Iran. More over, HMT (International) Ltd., the export subsidiary of HMT Ltd. received a letter of intent for setting up a Rs. 180crores metro maintenance workshop at Tehran. Another contract signed between the Indian Railway Construction Company and Iranian railways in 1997, a contract for the 25 million dollar Ahwaz Barder-e -Imam signaling project.²

In the early 1990s there was a proposal of multibillion dollar project of laying natural gas pipeline from Iran to India. The Iranian proposal was aimed at utilizing the large

¹ India, Iran sign MoU to boost ties, *The Business and Political Observer*, New Delhi, November 12th, 1992, P. 5

² Khan, Javed Ahmad, *Op.Cit.*, P.188

quantities of natural gas in that country. The commercial consul of the Iranian embassy thinks that Iran with the largest reserves of natural gas in the world, can supply enough gas for re-export to Nepal, Bangladesh, Bhutan and other countries in the region. In mid November 1993, Iranian oil Minister Gholobreza Aghazadesh, was in India to talk with the India. On the construction of a natural gas pipeline that would run from Iran's Qashem Island to India. For this purpose, Iran and India signed a Memorandum of Understanding to prepare a pre feasibility report for laying the gas pipeline from Iran. The pipeline was estimated to cost \$4-5 billion with a 2000Km long route, more than half of it below the sea. The pipeline is expected to supply 50 mm cubic meters of natural gas per day.¹ In 1994, technical experts from both countries decided to float a global tender. About half a dozen multinational consortia were trying to bag the project and had submitted concrete proposals. While Iranians had the expertise in laying pipelines, Indians had the technology to manufacture pressure pipes to be used in sea beds. Britain's Matt Mc Donald and Australia's Broken Hill petroleum offered to construct the pipeline. In this regard a spokesman for Pakistan's foreign Ministry announced in February 1994 that Pakistan had agreed in principle to provide Iran with transit facilities for the proposed gas pipeline that would link Iran's gas fields to India. Later, in 1996, negotiations between Iran and India on this proposal

¹"Indo-Iran Pact on Pipeline Reports more Crude Report", *The Economic Times*, New Delhi, November 19th, 1993, P. 5

natural gas pipeline apparently collapsed as Pakistan refused permission to German Consultancy firm PLE to begin a survey of offshore areas for a possible underwater pipeline route that would run from Iran's gas field at Bander Abbas to the port in Gujarat in Western India.¹

In November 1999, Indian officials and Iranian Deputy Foreign Minister Adeli agreed on the need to implement this project at the second conference of the Iran-India oil and gas committee in New Delhi. In order to overcome the security concerns of the various parties, an international consortium was recommended that would own the pipeline, enter into a long term agreement to buy gas and sign a similar long term agreement to supply gas to India. Pakistan has also accepted the idea of a pipeline through its territory to India and now encourages the plan. According to top Pakistani officials, Islamabad would guarantee the security of the pipeline. In November 2000, the visit to India by Iran's deputy Foreign Minister, M.H. Adeli, and both the Governments declared support for the pipeline project and launched a feasibility study on the land and deep sea option. Adeli admitted that, the deep-sea option would face technical difficulties. Laying and maintaining a pipeline 3000 meters under water on a mountainous seabed would be unprecedented while passing the pipeline along the Pakistani coast would raise Indian security concern. Iran had engaged Australian Consultant BHP Kinhill to deal with the on land gas pipeline passing through Pakistan and appointed Italian Snamprogetti for

¹ *Middle East Economic Survey*, 39 (45), August 5th, 1996, P. A-9

working on a feasibility study for the construction of an offshore gas pipeline from Iran to India.

The building such a pipeline would cost around \$2.5–3 billion via land and \$3.5–4 billion if partly laid offshore. The local capital markets in India and Iran could finance much of the project. Private sector participation would enhance the security of supply and markets by increasing pressure on Governments to avoid unilateral acts that could close the pipeline. The involvement of international institution would similarly reassure consumers, suppliers and international companies. The World Bank, Asian Development Bank and Islamic Development Bank have already expressed interest in participating. Bond issues in local currencies could raise part of the capital reducing the need for the hard currency. The method could be revised to comply with Islamic laws and regulations. Issuing a convertible bond partially redeemable in dollars at a predetermined exchanged rate is an alternative option.¹

The Iranian deputy Foreign Minister, M.H. Adeli who visited India to attend the Indian economic summit in November 2003, said that gas transported through an on land pipeline passing through Pakistan would be much cheaper than alternative source. While offering to foot 60 percent of the cost of laying pipeline from Assaluyeh to Balauchistan in Pakistan and then to Delhi, Adeli sidestepped the deep-sea option, which India had preferred feeling disruption in supplies of the pipeline passes through a Pakistan. Deep-sea

¹ *Middle East Economic Survey*, 44(11), March 12th, 2001, PP. D 5 –7

pipelines pose technical and financial difficulties as they have to be laid at water depth of 3500 meters. A shallow water line too is difficulties a rough seabed is not suitable for laying a gas pipeline. Iran tried to reassure India about safe delivery of gas at its border saying the project would have fiscal cover intake or pay agreement, insurance cover, and international contractual obligations and inter Governmental assurance. Under the feasibility study on land gas pipeline was estimated a small diameter on land pipeline would cost between \$ 2.162 billion and \$ 2.912 billion while a medium diameter pipeline would cost \$ 2.49 billion to \$3.51 billion. A large diameter pipeline would cost anywhere between \$2.91 billion and \$3.98 billion. Both Iran and Pakistan was keen interested on the 2670 Km long and 48-inch diameter on land pipeline as it provided. The former a cheap route to sell its vast gas reserves and the latter would have earned about \$ 580 million transit free from the \$3.5 billion gas conduct.¹

This is an ambitious about \$5 billion project, which envisages laying the pipeline through Pakistan. The project has yet to move beyond the papers it was signed on. The 2500 Km pipeline would have a 30 bcm/y capacity and would boost development of deprived areas along the route and regional economic integration. But technical, financial and political factors prevented realization of this project.

¹ "Tehran Offers to Foot 60% Cost of Indo-Iran Pipeline", *The Indian Express*, New Delhi, 25th Nov. 2003, P. 11

The visit of Indian Prime Minister to Iran in 1993, has given the go ahead signal to the proposed for an Indo-Iranian fertilizer project on the Qashem Island in Iran. Four Indian companies are to undertake work on the venture in which India and Iran will invest 50 percent each. Later, in 1994, a memorandum of understanding was signed between Iran and Krishak Bharti cooperative limited for complete the project. The Indian farmers fertilizer cooperation limited realized that, India should took more for setting up fertilizer plants so as to tide over the crippling shortage of natural gas and Iran with bountiful gas reserves have an excellent opportunity for joint venture in Iran. Another joint venture in fertilizer was set up in 1997 in Iran with the capacity to produce 7.26 metric tones of urea. Share holdings in fertilizer project with an estimated cost of \$ 40 million will be split 60:40 percent between India and Iran. Under the MoUs on the joint venture, India agreed to import 60 percent of the joint ventures product, or even more, given the increasing domestic consumption of urea.¹

Iran appears set to enjoy growing influence in a trade axis that spans India in the south up to the Caspian states and Russia in the north. This corridor will splay outwards to Western Europe and southern Asia and political and economic expediencies have thus compelled India and Russia to become strategic bed fellows with Iran. This trade axis was initially proposed in a memorandum signed in September 2000, between the three countries and again on 21st May

¹ *OPEC Bulletin*, 28 (8), August 1997, P. 56

2002, the transport ministers of Iran, India and Russia met in St. Petersburg to accelerate plans to develop a logistic route linking the three countries in a multi-modal system.

The trade corridor connects the ports of Jawahar Lal Nehru Mumbai in India with Iranian hub of Bandar Abbas by sea, through Iran by road and rail and up to the southern Caspian ports of Bandar Anzali and Bandar Amirabad. The route continues by sea to the Northern Caspian ports of Astrakhan to Russia and then by road and rail to St. Petersburg. The transport ministers from the three principal countries believe that the current transit time from north to south via the canal and Mediterranean currently takes 35 days, yet the route through Iran will take just 12 days. They content that despite the multi-modal nature of the route freight costs should be reduced by 15–20% and volume of trade between these countries would be increased significantly.¹

There are large opportunities existing in Iran for setting up joint venture. The regular visits of ministers of various portfolio and business delegation from both side as well as joint business council have identified key area of action.

Mr. Ehtiati, the chairman and managing director of Iran Petrochemical Commercial Company (IPCC) visited India in December 2003 and met many Indian industrialists and experts in the petrochemical industry. Mr. Ehtiati

¹ Maiden Andrew, "Iran in the Middle", *The Middle East*, London, January 2003, PP. 40 –41

emphasized that IPCC intends to set up more offices in different countries that will further enable IPCC to promote and expand its roots. He also mentioned that the company aimed to raise the production capacity of their various products. He said that there are many opportunities available between India and Iran which need to be explored and should be utilized in generating work together on different petrochemical industries and also to generate opportunities for a possible joint ventures between IPCC and various eminent business setup both in the private and Government sector in India. Mr. Ehtiati said that IPCC would also offer several convenient payment options and offers better customer service according to the market situation to create a strong presence in the sub continent and in India.¹

In the year 2003, Gas Authority of India Limited (GAIL) and National Iranian Oil Company (NIOC), National Iranian Gas Company (NIGEC) signed a memorandum for Cooperation Covering various activities in the natural gas, CNG and LNG sectors. The two companies have agreed to set up joint teams to stay and develop project opportunities in identified areas of cooperation. The MoU covers the identified areas like residential gas and CNG infrastructure in Iran, India and third countries, transportation of large volume of natural gas in the form of CNG in remote areas of Iran and India, exploration and production activities in Iran and India, development of gas based petrochemical plants in

¹“India and Iran Sign Petroleum Pact”, *The Asian Age*, New Delhi, December 6th, 2003, P. 3

Iran, setting up gas processing facilities, petrochemicals trading participation in LNG production in Iran. This agreement covered a broad range of activities apart from the gas pipelines and has thus opened several avenues of cooperation between the two countries. Under the MOC, GAIL and NIOC/ NIGEC will undertake to evaluate and implement project related to the possibility of development of CNG infrastructure and its use in transport sectors in Iran and India.¹

In the year 2002, the an agreement was signed between the Indian Minister for Human Resource Development and Science and Technology Dr. Murli Manohar Joshi and the Iranian Minister for Science, Research and Technology Mustafa Main to boost and concretize scientific cooperation. The areas identified for collaboration include information and communication technology, food technology, pharmaceutical research, energy, environment and sustainable development. Some specific areas were identified, software, medical, and agricultural biotechnology, metallurgy, oil and petrochemicals and alternative sources of energy.

The two sides have decided to setup a joint committee for achieving the objective envisaged in the agreement. It will meet alternatively in Tehran and New Delhi. Collaboration will be effected through implementation of joint projects, training of scientific personnel, visits and

¹*Monthly Economic and Commercial Report*, Embassy of India, Tehran, January 2003

exchange of experts, holding scientific and technology workshops, sharing experiences in technology infrastructure and technological documents and information as well as experiences with regard to women entrepreneurship and rural technology.¹

Almost the same time, both the countries had been began the liberalization and privatization of the economy. Now, in both the countries, private sectors have played and important role in the development of the country. There is need to identify the area in which both the countries get maximum benefit through collaboration among them. From the Indian side, the opportunities exist for setting up joint venture in Iran are leather, finishing in Tabrez or Tehran, leather coloring in Tabrez or Tehran, leather furnishing machinery, production of leather good for export, tile ceramic productions for export, Medical instrument, Pharmacy material, raw material production in electronics, production in textile for export, textile for carpet, natural colour production for carpet.²

Limitations in Joint Venture between India and Iran: -

Though the establishment of iron and steel industry in Jamshedpur, Bhilai and Raurkela are the some best examples of joint ventures in India during 1950s, but the Indian economy is regarded as the best-restricted economy till 1985.

¹*Monthly Newsletter*, Vol. XL, No. 2, Indian Investment Council, New Delhi, February 25th, 2003

²*Monthly Newsletter*, Vol. XXXVI, No. 8, Indian Investment Council, New Delhi, August 25th, 2001

Despite the better results of joint ventures than the public sector undertaking policy makers, avoided such type of economic policy in the wake of socialism. The new economic policy of 1991 brought wave of war against the restricted policy of 1970s and 1980s, and the majority of foreign ownerships, which was restricted to certain exceptional cases, are becoming more and more popular. The new policies of structural reforms approved a high range of share of foreign ownership ranging between 50 to 100 percent that strengthen the position of joint venture in India by two ways.

- (i) Increasing their stake in the existing joint market venture companies in the country and
- (ii) Entering into new agreements of joint venture in the newly opened area.

But the more and more priority to foreign ownership in the mode of joint venture operation has declined its relevance during the era of liberalization since many MNCs is opting the route of merger and acquisition of existing enterprises to enter India.

Since joint ventures improve the performance of the production process with the help of new improved technology and management, it is necessary to investigate the problems that hampered their progress. Followings are the some main problems of India's joint ventures companies.

1. Infra structural bottlenecks and Domestic Shortages – Project export is the best example that shows the importance of joint ventures companies in India, throughout the period since the inception of independent India, there were some

serious limitations in the promotion of project exports. In India recurring shortages of power, steel, cement, transport and miscellaneous inputs, especially non-ferrous metals put delays, strikes etc. had badly affected not only shortfall in exportable surplus but also avoidable delays in project competition.¹ Especially, the problems of steel and cement shortages had been quite acute. This led to either delays in completion of civil construction projects or the Indian companies had to get their supplies from other countries that affected the competitiveness via cost escalation and hence reduces the level of profitability. In the absence of effective steps to solve these shortcomings, it was feared that many of India's contracts were likely to be reduced to service contracts only. The timely execution of contracts in hand, is the best way to bring in much success to project exports rather than any promotional efforts, which is dependent on the availability of inputs like steel, aluminum, pig iron, transport and power.²

Financial Limitations: -

Finance plays a crucial role in the economy. The shortage of finance negatively affects the production process and efficiency of a company. The less availability of finance has always been a problem of joint venture companies that limits the volume production. The process of loan sanction in the India's financial institutions like Exim Bank, Industrial Development Bank of India etc. is very regressive and

¹ "Strategy for Engineering Export" DGCI Publication, Calcutta, 1989, PP. 14-17.

² *Ibid.*, P. 29

lengthy. Since the date of loan application to sanction of loan, application has to finalize a number of formalities that have a negative impact on the applicant and hence reduces the amount of financial support to needy. Lack of financial facilities thus caused the desired and expected amount of production to lag behind. The Indian banks offer financial support to ongoing projects in Iran and other countries, but it is done in a long hesitation. Meanwhile no builder has so far been able to get the cash assistance of 70 percent offered against project exports. This is because of the difficult conditions attached to the scheme.¹

Despite various steps has been taken by the Government for providing packing and post shipment credits at concessional rates with the availability of various guarantees etc. There is a persisting feeling among exporters that exports are not priority sector in the eyes of commercial banks. Reserve bank of India can give a real boost to project export by opening credit windows. Setting up offshore banking facilities could mitigate some of the financial problems. If India could draw financial support from Iran, it must be welcome, but due to its own obligations of the economy it is nearly impossible.

Delay in Finalizing of Project: -

In the way of finalizing of project passes through number of hurdles. Joint venture between different countries faces number of obstacles like financial political, security and international obligation etc. for example, the dream

¹ *The Economic Times*, New Delhi, October 7th, 1993, P. 8

project about 2600 km gas pipe line laying from Iran to India. Although the Iran India gas pipeline's prospects are improving, political and financial difficulties will impede progress, including Pakistan's frosty relations with Iran and political conditions within Pakistan and India. Another major difficulty would be that the most direct overland route would require laying the pipeline through the Iranian border region of Sistan-Baluchistan, where armed tribes engage in drug smuggling. Tehran would need to ensure that these tribes do not threaten the pipeline security, probably by persuasion and payoffs. The Pakistan's province of Baluchistan just over the border also suffers frequent tribal violence.¹ These types of problems have created doubt in the mind of international financial institution or investor who feels ready to finance the project. Ultimately, it has adversely affected the projects of joint venture between the countries.

Inexperience: -

Inexperience in handling the large-scale industries under the joint venture armed with modern technology caused lot of problems for Indian joint venture companies. The import of managerial skills and other types of employees sometimes went opposite to the agreement of joint venture and caused some controversy over this issue in between the participating companies. On the other hand the employment of inefficient and with lack of technical know-how due to the provision in the joint venture agreement, negatively affects

¹ "Iranian Gas For India –Pipe-Dream or Reality", *Middle East Economic Survey*, No. 44:11, March 12th, 2001, P. D 7

the efficiency and volume of production of the joint venture companies that reduces the profitability. The war over the management between both parties, some times harms the growth of the company.

Lack of Information: -

Lack of information has been another reason, why many contracts slipped from Indian hands. In the absence for wide network of monitoring agencies, the information sometimes does not reach to the concerned firm or company. Indian embassies and trade missions abroad were normally handicapped for want of sufficient staff and thus, the normal feedback and necessary information were not received. Thus, the need for a national trade information center has long been felt that can continually give specific information regarding tender etc.

Though India's relations with Iran have improved in the past few years, and economic cooperation between the two countries is being expanded, but still India can play a key role in the reconstruction of Iran in all sectors of its infra-structure, power, railways, ports, telecommunications etc. During the Iran-Iraq war, India and Iran had signed a number of contracts for the promotion of industrial and technological cooperation and their prospects are still very high. The business opportunities for India and Iran are tremendous. Iran now invites foreign capital on a 100 percent equity basis and also provides guarantees for total repatriation of capital and technology whenever the company wants. The established Indian companies in the fields of

power, railways, ports, telecommunications, small scale industries and various employment oriented rural development programmes need to organize themselves to look at the opportunities in Iran.

Conclusion

SUMMARY AND CONCLUSION

The economic interdependence is the fact of today's civilized world. The uneven distribution of resources and factors of production has compelled the economists and social scientists for mutual interaction and cooperation for the development of the world economy in general and the economy of a particular country in particular. The economic cooperation between two nations is more, important these days because of the need for formulating a feasible and constructive strategy for the development of the both countries. For the promotion of their national and collective self-reliance through economic and technological cooperation, the integration of the product as well as resource market is the need of the hour.

The economic and technical cooperation among two economies is not a very simple exercise but a complex work where the analysis of each and every economic variable of the both the economies is of crucial importance. The desired goal of the both the economies can be achieved through improving the conditions and volume of commercial trade transactions and also with the emergence of the productions and also with the emergence of the production cooperation with the help of transfer of technology. For a better, result from the economic cooperation, the sector wise evaluation of the economy is necessary to find out the opportunities and challenges for both the countries.

The present research work is devoted towards the main objective of analyzing India's economic relations with Iran

to find out the prospects of further development within each other which are still untouched for both the economies.

In the second chapter we have analyzed the structure of Indian economy. India is rich in the production of agricultural commodities and some important minerals like Iron ore, Manganese ore, Copper, Lead, Bauxite, Mica and Limestone etc which are the basis for the modern and scientific mode of production to fulfill the other most important raw material like petroleum, lubricants, chemical elements, India relied on imports for which Iran has been proved as the most important source. The most important resource which is imported from Iran is petroleum and lubricants. In 1980-81, the total expenditure, made on the import of these products was Rs.3,264 crores. After one decade, the total import value of petroleum and lubricants assumed a figure of Rs.10,816 crores more than three times than the previous decade. This high growth rate of petroleum and lubricant imports is mainly caused by high demand in the industries as fuel and a rapid growth in the automobile sector. In the next ten years this value rose to Rs.45,421 crores which is more than four times than the import value of 1990-91.

The next important items where import has increased sharply are pearls; precious and semi-precious stones worked or unworked edible oil, fertilizers, and capital goods. All these items are unfinished or semi-finished products that are used as raw materials in the manufacturing as well as agriculture sector. In this way with the passage of time the

dependency of India has increased for import of important raw materials. The present study shows that the composition of imports has changed considerably since the inception of the second five year plan (1956-61), when we have followed the policy of industrialization and the diversification of the existing one with a heavy emphasis on the development of capital and basic industries. This diversification in the economy brought a rapid increment in the imports of capital equipment in large quantities necessitated by spare parts materials and machinery in substantial quantities to keep the equipment in working order.

The principal commodities which are being exported by India to the world are classified in three main groups.

- (i) Agriculture and allied commodities
- (ii) Ores and minerals, and
- (iii) Manufactured goods.

The export of agriculture and allied commodities include items like coffee, tea and mate. Tea, coffee and mate contributed highest exports in total exports of agriculture and allied commodities. During 1960-61 to 1980-81, the export of these allied products grew with an annual rate of 2.81 percent. During next ten years 19.16 percent annually. In the next decade the growth rate of the exports of tea, coffee, and mate is 9 percent per annum. Therefore, the export of these commodities is badly affected by policies of new economic reforms against the expected gain from the establishment of the world trade organization. The conditions for the export of spices are at some extent favourable during the reforms era

but in case of the export of rice the condition is unfavourable and registered a negative growth rate during 1990s. This trend in the export of agricultural commodities shows that since 1960s, the pattern of agricultural practices has been changed. The modern technology and farm practices has taken the place of traditional agricultural practices. This trend is same for the exports of agricultural commodities. The share of food grains in the total exports has declined slowly initially but sharply in the 1990s where as a sharp increase in the exports of allied products is registered in which the contribution of fish and fish production is considerably high.

The next important, group whose share in India's total export is recognisable is ores and minerals. During 1960s to 1980s, the exports of ores and minerals grew slowly but after that a sharp growth in the export of this commodity is achieved. It grew to Rs. 2,975 crores in 1999-2000 from Rs.1,497 crores in 1990-91. In the total export of minerals and ores the contribution of Mica and Iron ores is highest individually the growth rate of export of Mica is not very enthusiastic. During 1990s its exports is nearly stagnant. Contrary to this the exports performance of Iron ores is very encouraging. The growth rate of exports of Iron ores was minimal during 1960-61 to 1980-81. But a drastic change in the growth rate of exports of Iron ores was assumed during 1980-81 to 1990-91. Again in the next five years the export performance of Iron ore is satisfactory but after this it has

declined. This trend shows that the resource management has been improved after 1995-96.

The next group of exportable commodities that also shows the level of development is the manufacturing commodities. A sustained growth in the export of these commodities is achieved. The growth rate of exports of manufacturing commodities has been very high during 1980s in comparison to 1960s and 1970s. The share of manufactured commodities in the total India's export was 15.21 percent in year 1980-81, that increased to 72.91 percent in the year of 1990-91 and further rose to 79.53 percent in 1999-2000. Therefore, it is evident from the available data that there is only one sector on which the policies of the New Economic Reform have positive impact.

The share of textile fabric and manufactures is highest in the total exports of manufactured goods. Till 1980s, the performance of the textile industries has not been recognisable mainly due to high cost of production. This high cost of production of Indian textile industry was aggregated due to presence of unskilled, labour force with rising costs and use of old and outdated machinery. But after this, the policies of stabilization paved the way for machinery import and import of management that enhances the productivity of the industry and made this industry competitive in the international market.

In the recent years the export of gems and jewelry has become the most important source of foreign exchange. In 1980-81, India managed only Rs.59 crores from the exports

of gems and jewelry that increased to Rs.5247 crores in 1990-91. This amount further increased to Rs.33089 crores at the end of the 20th century.

As far as the direction of India's export is concerned Russia has been the most dominating country till 1991. But after the collapse of the USSR, the Russian market has major set back to India's exports effort. In 1990-91, India's total export to Russia was Rs.5255 crores that declined remarkably and became Rs.4123 crores in 1999-2000 and registered a negative growth rate of 2.659 percent annually. In the recent years India's exports has diverted towards USA since India's exports to USA has registered the highest growth rate of 25.474 percent annually during the 1990-91 to 1999-2000. The other important economies to which India export, a sizable amount of its exports are Africa, Asia, France and Belgium. The per annum growth rate of exports to these countries are 24.518, 24.356, 20.116 and 18.91 percent respectively against the 19.594 percent annual growth rate of India's total exports to the world.

The available data about the import of the commodities show that the highest amount of goods are imported from the American market. In 1990-91 the share of USA in India's total import was 12.14 percent which was the highest among all the individual countries. After completion of the fiscal year 1999-2000, USA holds its position as the highest exporting country to India. During the period of 1990-91 to 1999-2000, India's total import has grown at the annual rate of 18.862 percent. The growth rate of India's import from

Asian countries is highest. Iran occupied the second place in terms of growth rate of imports to India. The growth rate of Indian import from Iran is 17.485 percent annually for the period of 1990-91 to 1999-2000 which is the second highest among all the individual economies.

India is the predominantly agricultural base country where 64 percent of population is employed in agricultural sector and contributes 26 percent in the GDP. The share of the agricultural sector in the total export is 20 percent. Today, India's agriculture sector is recognized as highly input consuming and mechanized sector from a low input consuming and traditional mode of production during 1950s. With the development of agriculture sector after invention of the green Revolution, the per capita net availability of food grains went up to a level of 469 grain per day in early fifties despite a high growth of population. With the help of the use of HYVS with high doses of fertilizers combined with assured irrigation, the productivity of land has increased. As a result of new agricultural strategy food grains output increased drastically from 81 million tons in the third five year plan on an annual average basis to 115 million tons in the seventh plan and the food-grains production touched the record level of 2,098 million tons in 1999-2000.

In the early years of independent India, the level of development of industrial sector was very poor. To accelerate the growth rate of industrial sector Government of India gave more emphasis in the industries and established a number of heavy industries in the second five year plan. As a

greater emphasis on industrial sector, the general growth rate of the industrial sector has been 7.8 percent during 1980-92, annually. But after the introduction of economic reforms in July 1991, the industrial growth rate has declined to 6.0 percent annually during 1992 to 2000. The policies of New Economic Reforms have badly affected the mining sector whose growth rate reduced to 3.3 percent annually in 1992-2000 from 8.4 percent growth rate during 1980s. Manufacturing and electricity sector have also followed the same path.

The policies of New Economic Reforms have shown its significant impact on the volume of trade. During the liberalization era India's import grew significantly petroleum oil and lubricants has been a major part of India's total import in 1990-91 its share in total import was 21.59 percent that reduced slightly in 1995-96 to 17.25 percent but increased to 26.40 percent in 2000-01 again on the custom basis, the import of non-oil and non-gold commodities grew at a rate of 20 percent per annum during 1992-1996. But at the end of fiscal year 1999-2000, the growth rate of import of these commodities decelerated sharply and touched the level of 3.5 percent per annum. The export performance of India is also very well during 1990s. Over the period of 1991-98, the total merchandise export grew at the rate of 13 percent and agricultural and manufactured export at 14.68 and 13.81 percent per annum respectively. A high growth rate is registered after 1992. After the introduction of the liberalization policies the merchandise exports had grown by

10 percent in 1993, 16 percent in 1994 and 23 percent in 1995. In the post reform period the gain from the international trade is aggregated at the cost of labour intensive product where the export of manufactures has shifted towards more value added product categories.

The structure of the economy of Republic Iran have analyzed in the third chapter, Iran has abundant oil reserve, oil revenues of Iran had tremendously increased with exceptionally high growth rates since 1970s. Iran's oil policy and preoccupation in the post 1946 period have been at the heart of the country's development strategy, over shadowing all other economic policies and preoccupations. The decisions with respect to the marogent exploration, production and marketing etc have been at the top of the nation's economic agenda and priorities. Some other important minerals like coal, lead, copper, uranium, magnesite, tine, mica etc. Iran has a significant amount of mineral which is crucial for any country. The principal commodities of Iranian imports comprised food and live animals, chemical product, Iron and steel and Machinery and transportation etc, Iranian total imports amounted \$18,722 million in 1990-91 which decreased to \$12,683 million in 1999-2000. In which the share of food and live animals in Iranian total imports was 11.41 percent in 1991-92 which increased to 15.39 percent in 1999-2000. Iran imported chemical product worth of \$2,876 million in 1990-91 which decreased to \$2,027 million in 2000-01. During the period of 1990-91 to 1999-2000, the annual average import growth rate

of chemical product was -2.01 percent. Iran imported Iron and steel worth of \$4,004 million in 1991-92 that decreased to \$1,819 million in 2000-01. The share of Iron and steel in Iranian total imports was 15.63 percent in 1991-92 which decreased to 12.67 percent in 2000-01. Machinery and transportation was major contributor in Iranian total imports during the 1990s. Iran imported machinery and transportation item worth of \$6,264 million in 1990-91 and the share was 86.87 percent in Iranian total import in the same year. But, the share of Machinery and transportation in Iranian total imports had declined over the period. The share of this item in Iranian total imports was 52.02 percent in 1991-92 which decreased to 36.04 percent in 2000-01. Another major item contributed in Iranian import is electric machinery tools and appliances worth of \$1,344 million in 1990-91 which decreased slightly to \$1,085 million in 2000-01. Iran imported transportation vehicles worth of \$1,034 million in 1990-91 which increased to \$1,111 million in 2000-01. The composition of the Iranian total imports shows that the economy has been on industrialization path and on the way to greater level of development.

The principal commodities of Iranian exports comprise oil gas and oil products, fresh and dry fruit is a major item of agricultural export. Apart from carpet and all kind of skin and leather are also exported in significant amount. Among the export of industrial goods, chemical product, copper bar, sheet and wire, cost iron, iron and steel, ready-made clothes, knitware and all kinds of fabric are the major commodities.

Petrochemicals are an important source of revenue contributing a major portion of non-oil industrial exports. In the year 1991-92, the share of oil, gas and oil product was 85.8 percent that slightly fell to 85.3 percent in 2000-01. In absolute term, the export of this item was \$1,6012 million which increased to \$2,4280 million in the year 2000-01. The export of oil and gas has grown at the rate of 9.09 percent annually during the period of 1991-92 to 2000-01. The major portion in export of agricultural product has been contributed by fresh and dry fruits. In the year 1990-91, the share of fresh and dry fruits was constituted 27.73 percent in the Iranian total export of agricultural product and increased to 33.08 percent in the year 2000-01. Iran exported carpet worth of \$1,161.2 million in the year 1991-92 which came down to only \$581.2 million in 2000-01. Since 1970, in each and every plan has a focus of attention to industrialization and diversification of the economy. The share of industrial goods in Iranian total export was constituted only 3.5 percent in 1991-92, increased to 10.7 percent in 2000-01. This increase in share was the result of massive industrialization efforts.

As far as the direction of Iran's export is concerned in 1990-91 Japan was at the top with the share of 20.71 percent in Iranian total exports followed by Germany with the share of 11.82 percent and third position was occupied by Italy with the share of 8.64 percent. In the year 1999-2000, Japan again at the top with the share of 15.36 percent but in recent years Iran's exports has diverted towards England, UAE, Italy and South Korea etc. In 1999-2000, England occupied

second place in Iran's total exports with the share of 14.44 percent followed by UAE with the share of 7.53 percent, Italy and South Korea placed at 4th and 5th position with the share of 7.13 and 6.41 percent respectively.

The available data about the import of the commodities show that the highest amount of goods are imported from Germany's market. In 1991-91, the share of Germany in Iran's total import was 18.32 percent, which was the highest among all the individual countries, followed by Japan with the share of 10.32 percent and third place occupied by Italy with the share of 8.0 percent. After completion of the fiscal year 1999-2000, Germany holds its position as the highest exporting country to Iran. In 1999-2000, the share of Germany in Iran's total import was 10.89 percent second position occupied by Italy, with the share of 7.1 percent followed by UAE with the share of 6.06 percent and 4th and 5th position occupied by France and Japan with the share of 5.4 and 4.65 percent respectively.

Iran, traditionally agriculture based country, up to 1970 agriculture was the major contributor to the gross national product, and even in the early 1970s about half of the total Government revenue (excluding oil related revenue) was derived from direct and indirect taxation on agriculture. The importance of agriculture is increasingly evident since demand for agricultural products are rising at an even faster rate and domestic agriculture is unable to keep pace. This growing demand is closely linked to rapid population growth and to increasing rural urban migration. To meet the

accelerating demand the Government has increasingly relied on imports. The share of agricultural sector of GDP fell slightly in the 1990s from 23.9 percent in 1992-93 to 20.9 percent of GDP in 1999-2000. The percentage of population engaged in agriculture had been declining over the two decades, in the year 1980, there were 38.5 percent population engaged in agriculture, it declined to 32.3 percent in the 1990 and further declined to 28.2 percent in the year 1997. Irrigated land under food crops in Iran accounts for about 35 percent area and 68 percent production. Rest of the 32 percent production comes from 65 percent area under dry land farming. Nothing is as crucial to farming in Iran as rainfall. In total 80 percent of the land area experience precipitation less than 300 mm while 250-300 mm. only 9 percent of the land receives more than 500 mm which is nearly satisfactory amount for assured cultivation.

Rapid industrialization of Iran began during the 1960s at first by means of import substitute. First came the output expansion of a wide range of non durable consumer goods, including textiles, clothing, shoes and processed food. The output of refrigeration, television sets, coolers and other appliances made up of the list of durable consumer goods. Gradually, the industrialization processes broaden to include production of intermediate and capital good. The development of a wide range of new industries in Iran has naturally changed the composition of Iran's external trade. The rate of increase of exports has accelerated in 1970s and 1980s. During 1960-76, industrial activity provided more

than one fifth of the increase on GNP. In the same period, the annual average growth rate of manufacturing and mining alone exceed 13 percent. Between 1976 and 1986, the number of industrial wage workers (including Government employees) declined by 11.3 percent from 1,05,100 to 9,32,000 and the total number of employed in industrial sector decreased from 1,82,4000 to 1,57,500. Between 1986 and 1996, the number of industrial wage worker (including Government employees) increased by 83.52 percent from 9,31,000 to 1,70,9000 and the total number of employed in industrial sector increased from 1,57,5000 to 28,22,000. During the periods of 1990-91 to 1999-2000, the average annual growth rate of GDP was 5.47 percent. In which oil sector has grown at the rate of -0.13 percent, agriculture, manufacturing and mining, service sector has grown at the rate of 2.77, 3.60, and 3.17 percent respectively. Particularly, in manufacturing and mining sector, manufacturing, mining electricity, gas and water and construction has grown at average annual basis 67.4, 2.54, 11.56 and 18.46 percent respectively during the 1990s. During the period of 1992 to 2001, the share of oil sector in GDP varied between 6.5 percent to the highest 18.13 percent. In the non oil sector the share ranged between 81.88 to 93.5 percent and the average annual share was 87.63 percent of GDP. Among the non-oil sector, agricultural, manufacturing and mining, and service sector contribution in GDP was 20.8, 20.56, and 46.39 percent respectively on average annual basis during 1992 to 2001.

In the fourth chapter, we have analyzed the India's trade relations with Iran. The evidence about the trade relation between these two countries is found since the ancient age. In the modern time the group for the economic relations was provided only after India's independence when the first ever treaty of commerce and navigation was signed between them in 1954. In the later period it became the basis of all other agreements which were later signed in 1961, 1963 and 1968. A notable water mark in politico-economic relations between India and Iran was achieved, particularly, when the shah of Iran paid his twelve days visit to India in January 1969.

In 1973, the OPEC countries decided to enhance the prices of petroleum product. Due to this a large amount of foreign exchange went to Iran since that import of petroleum product constitutes a sizable amount in the total import. As a result Iran got a better purchasing power which stimulated the Iranian import from India resulted in the increment in total volume of trade. The increased volume of trade diversified the composition of the trade between these two nations. During this period, Iran traditionally supplied petroleum and lubricants to India for the imports of minerals, jute, tea and technicians. India also supplied iron ores, aluminum, steel, cement, transmission towers and power generating units. Besides the petroleum product, India also imported fertilizers, phosphoric acid, ammonia, sulphur, and copper from Iran in larger quantities. But this momentum of increased trade between India and Iran breaks down in 1979

when Islamic Revolution took place under the leadership of Ayatollah Khomeini. After the revolution the whole administrative and economic set up of the nation changed. Iran cancelled all agreements and proposals signed during the rule of previous Governments. The on going development programme drop-out which were going on with the help of USA, Europe and Japan. These all new political developments changed the existing economic environments between these two nations due to which a substantial part of the trade is lost. The trade relation between India and Iran was also discontinued due to Iraq-Iran War which started in September 1980 that continued up to August 1988. The war put a severe test to Indian diplomacy toward Iran and Iran. Before the war, India used to receive 70 percent her total oil imports from Iran and Iraq but due to war India suffered a great loss in terms of higher oil prices. The war also negatively affected the volume of Indian exports to these countries.

The early year of 1990s has been very distorting from the view point of Indo-Iranian trade. The Gulf War of 1991 changed the political scenario of the region and Iranian market became insecure. At the same time USSR disintegrated which had a close economic tie with India and Iran. These events have changed the economic relation between India and Iran. Both the countries were finding the partners for the development of trade and fall into different treaties particularly after visit of Indian Prime Minister, Mr. P.V. Narsimha Rao and the Iranian President, Mr. Rafsanjani

with the arrival of 1990s. India and Iran became the need of each other because Iran needed technical help from India to reconstruct her economy destroyed during the Iraq-Iran War and at the same time India was looking for a new market after the collapse of the USSR.

The statistical evidence shows that the out of thirteen important commodities only three commodities have accounted more than 35 percent of the total Indian exports to Iran during 1996-97. These important commodities are machinery and instruments, drugs, pharmaceuticals and fine chemicals and iron ore whose export earnings are 19.02 million US dollar, 26.50 million US dollar and 24.56 million US dollars respectively. At the end of the year 2002-2003, the export composition of India to Iran changed. After completion of six years, five commodities have emerged that dominates in the Iranian market. These commodities are machinery and instruments, primary and semi finished iron and steel, organic and inorganic chemicals and processed minerals with their respective share of 25.84 million US dollar, 23.75 million US dollars, 23.05 million US dollars, 52.06 million US dollars.

The total exports earning from Iran was 195.14 million in 1996-97 that increased to \$657.03 million in 2002-03, nearly more than three times than 1996-97 and thus registered an annual growth rate of 22.425 percent. Out of the thirteen commodities, there are four commodities that have registered a negative growth rate during the study period. The five commodities whose annual export earnings

growth rate is more than the national are primary and semi finished iron and steel, paper, wood products, processed minerals, man made yarn fabric made up and rubber manufactured products. The exports earning growth rate from their respective exports are 132.59 percent, 41.37 percent, 41.21 percent and 27.19 percent annually.

The composition of importable commodities from Iran is made up with eight selected commodities in the present research work. These commodities are non-ferrous metals, fruits and nuts, organic chemicals, inorganic chemicals, pulses, sulphur and unroasted iron pyrites, art, resins and plastic materials and metalifer-ores, metal scrap and wool raw. The import of non-ferrous materials occupied an important place in Iranian export to India. Despite a negative growth rate in the import expenditure, the payment to Iran for the import of non-ferrous metals grew by 124.99 percent annually. The commodities on which the import expenditure growth rate is positive are pulses and sulphur and unroasted iron pyrites. The import expenditure growth rates on these commodities are 65.345 percent and 8.844 percent respectively.

The composition of India's exports and imports from Iran reveals that

- (i) Most of the exportable commodities from India comprise of manufactured and finished product whereas the importable commodities from Iran consist of primary in nature that shows the prospect of Indian

commodities in Iranian market but a less potentially is found in Indian market for the Iranian commodities.

- (ii) A very positively surprising result is found during the study period, the evidences reports that since 1996-97, the total payment made to Iran for imports in India has a declining trend where as India's exports earnings from Iran has increased remarkably. The total deficit of \$680.02 million in 1996-97 improved to \$398.27 million surplus in 2002-03.
- (iii) There are five important exportable commodities to Iran that have an average growth rate of more than 50 percent out of these five, four commodities are manufactured products, which are of very crucial importance from the Indian side.

An important aspect of international trade is balance of trade. The balance of trade between India and Iran has shown a persistent and chronic trade deficit. The trade deficit between these two countries has been ever growing before 1990. After this trade deficit has shown favourable attitude towards India. Since 1991, it has declined to Rs.690 crores but in 1994-95 it jumped to Rs.1193 crores. The increasing trend of trade deficit continued till 1999-2000 and became Rs.4067 crores. Unexpected event occurred in 2000-01 when India's balance of trade became surplus between these two countries.

The fifth and last chapter of the present research work is concerned with India and Iran's policy frame work towards the joint venture and investment because it is recognized as

the best means for foresting and promoting economic cooperation. It is an essential part of the global strategy of development to achieve greater specialization diversification in the structure of the economy. Among the group of developing countries, it is widely acknowledge that India has achieved comparatively a high degree of industrialization and sophistication in its industrial production as well as significant level of development in respect of large, medium and small scale manufacturing sectors.

The liberalization policies of 1991 and after that, simplified the procedural formalities and raises investment ceiling in the form of cash. Joint venture policies of 1995 compartmentalized the joint venture proposals into two categories (i) the fast track and (ii) the normal track. The cases under fast track automatically approved by the Reserve Bank of India (RBI) before three weeks. A proposal can be considered as fast track only when (i) the total value does not exceed \$4 million for India party, (ii) the investment amount is upto 25 percent of the annual average export earning in the preceding years for the Indian party and (iii) investment should be fully repatriated through dividend and other such remittances within a period of five years.

The proposals not qualifying for the fast track automatically come under the normal track. The proposals under this category are judged by special committee. The committee examines their feasibility in terms of foreign exchange earnings and if satisfied, recommends them for RBI approvals.

The first incidence of joint venture of India came into knowledge in 1958 when Birla Brothers initiated the setting up of textile mill in Euthopia. There were 245 overseas joint venture before 1992 consists of 161 as operational and 84 in different stages of completion. But with the implementation of liberalization policies, there is a sharp rise in the total number of joint ventures. At the end of December 1995, the total number of overseas joint companies rose to 1016 nearly four times of the 1991 figure.

A drastic change is also observed in the policies towards the foreign investment. There were very restrictive policies towards foreign investment before the initiation of liberalization programme. A Foreign Investment Promotion Board (FIPB) was set up to promote the foreign investment and look into its related matters. For a long time most of the manufacturing sectors have been as 100 percent automatic route. Foreign equity is limited only in the production of defense equipment 26 percent, oil marketing 74 percent and Government owned petroleum refineries 26 percent. Most of the mining sectors are similarly on the 100 percent automatic route with the foreign equity limits only on atomic minerals 74 percent, coal and lignite 74 percent exploration for oil 51 percent to 74 percent and diamonds and precious stones 74 percent. 100 percent equity is also allowed in non-crop agro-allied sector. 100 percent automatic route is also available in infrastructure sectors. This includes highways and roads, ports, inland, water ways and transport and urban infrastructure and courier services.

The consequences of Islamic Revolution translated into a severe shock to Iranian economy. The nationalization of the economy brings 60 to 80 percent industries under Government control. However, article 44 of the newly born constitution defines the existence of the three sectors in the economy, the state sector, the cooperative sector and the private sector. But confusion is created by article 81 that prohibited any grants and concessions to foreign companies that became the hurdle in the formation of joint venture in Iran.

The planning era of Iran started with the slogan of reconstruction of the economy find it difficult to go ahead and liberalize the economy through partial privatization of the economy. Through this process, they invited private sector in 1991 to participate in the petrochemical industries. To ensure it Iranian Government and Majlis approved a bill for borrowing \$3 billion from the international market. The Government wanted to establish the joint venture company in Iran in the field of petrochemicals to exploit the readily available raw materials and natural gas. This provision of joint venture was passed with the restriction that the 51 percent stocks of the company must be owned either by the Iranian Government or by private participation in the form of equity.

To encourage the foreign investment in Iran new laws have been made, and amended text approved in June 2002, empowers foreign companies to invest in newly established factories and industries directly or through terms and

conditions of buy-back contracts. A maximum ceiling of 49 percent is fixed for participation in the newly established companies. In June 2002, the law governing "encouragement and protection of foreign companies in Iran is approved that grants a number of facilities to foreign investors including participation of more than 50 percent of the equity of the new established joint venture companies less than 50 percent of the existing equity may be invested without any permission and the approval of the office of the encouragement and protection of foreign investments.

A many fold increase, in the oil prices in 1973 enhanced the petro-dollar reserve of the Iran. The increased petro-dollar reserve provided an opportunity to Iran in the direction of diversification of the economy. The industrialization programme of Iran led to a significant growth in the import of equipments and engineering goods and joint ventures took place. But unfortunately India failed to exploit the Iranian market at that time due to unhealthy relation between India and Iran.

The first joint venture between Indian and Iran came into figure in 1965 when Madras Refinery Ltd. was established in Iran with a 50 percent India share of Ministry of petroleum in National Iranian oil Company (NIOC). In 1974, Irano-Hind shipping company Ltd. (IHSC) was formed in which 49 percent equity was held by shipping corporation of India SCI and remaining 51 percent by Islamic Republic of Iran Shipping Lines (IRISL).

Along with the joint ventures India exported a number of consultancy and projects during the seventies. At various Indian cooperative training institutions, India provided training facilities to two Iranian trainees in cooperative marketing courses during 1974. India expended \$51,000 million for the purpose of establishing 32 training institutes in Iran in the same year. 1200 medical personals were exported to Iran from India during 1975-76. Apart from consultancy programme, an important agreement was signed between India and Iran for the development of Kudremukh iron ore mine in which Iranian contribution was significant with the contribution of \$630 million with the agreement of import of 150 million tones of iron ore from India over a 20 year period.

A number of projects were set up in Iran during 1990s. Bharat heavy electrical Ltd (BHEL), setup a major thermal power project in Kerman at the at the cost of \$700 million with a capacity power of 810 MW. With the expenditure of \$200 million a sugar project is also setup in Khuzestan region of Iran. This period is also significant from the view point of exports of railways projects. Both the countries worked on the two railway links in eastern Iran. The total length of South East of Northern known as Bafq Mashhad railway line is 700 km while East-West Kerman Zahedan track runs 500 km. The discussion is still continue, since the early years of 1990s about a proposal of multibillion dollar project of laying natural gas pipeline from Iran to India. In the field of fertilizer production both countries are working

since 1993 by accepting the proposal for an Indo-Iranian fertilizer project on the Qashem Island. Another joint venture in fertilizer production was setup in 1997, in Iran with the capacity of 7.26 metric tons of urea production. India and Iran share the estimated cost in 60:40 ratios. India has, therefore, large opportunities in the Iranian market in the field of railway projects, fertilizer production and training projects.

This is contrary to the general impression that the Indian exporting community has not adequately exploited the enormous market potential, despite having the natural advantage of geographical proximity and age old trade links.

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